

A
DISSERTATION
ON THE
PRESERVATIVE
FROM
DROWNING;
AND
SWIMMER'S ASSISTANT.

(PRICE TWO SHILLINGS AND SIXPENCE, SEWED.)

A

DISSEMINATION

OF THE

OF THE

OF THE

OF THE

OF THE

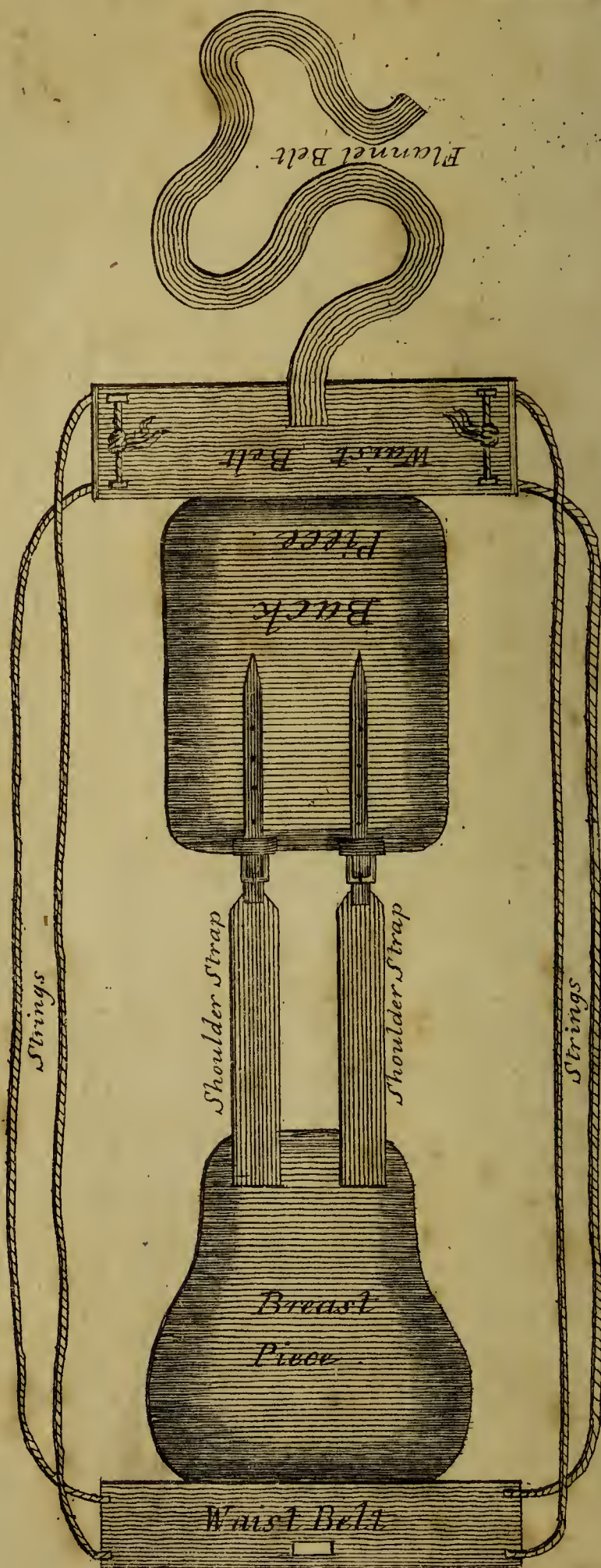
(OF THE)

Handwritten text, possibly a title or date, located at the top right of the page.



Handwritten text, possibly a signature or date, located at the bottom left of the page.

The Preservative from Drowning



Stimmer's Assistant.

A
DISSERTATION
ON THE
PRESERVATIVE
FROM
DROWNING;
AND
SWIMMER'S ASSISTANT.

A NEW INVENTION,
SIMPLE, COMMODIOUS, AND OF SMALL EXPENCE:

Can be carried in a Handkerchief, and instantly applied to the
Body, whether naked or cloathed, so as *effectually* to
preserve from Drowning—Assists in Swimming—And
proves no Hinderance to Motion or Action of any kind,
either in or out of Water.

ADAPTED TO PRINCIPLES, ESTABLISHED BY EX-
PERIMENTS, AND PROVED BY TRIALS.

TOGETHER WITH
AN USEFUL ACCOUNT
OF
LOSSES OF LIVES BY WATER.

BY R. MACPHERSON, GENT.

L O N D O N:

PRINTED FOR J. MURRAY, NO. 32, FLEET-STREET.

M DCC LXXXIII.

DISSERTATION

OF THE

PHYSIOLOGICAL

AND

ANATOMICAL

AND

PHYSIOLOGICAL

ANATOMICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL



PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

OF THE

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

PHYSIOLOGICAL

THE Author being averse to the holding of himself up to public view, more than is absolutely necessary, did not intend to put his name to this Dissertation; and thought, both it, and the subject it treats of, might be left to stand or fall by their own merit: but he determined otherwise, on its being suggested, that anonymous publications are generally suspected of being mere fabrications, commonly termed Catch-pennies; and consequently, that his not appearing, would subject the Improvement to the bad effects of such prejudices. Again, considering the manifest impropriety and insignificance of most Dedications, he did not mean to give any on this occasion. To address a particular person in that way, is bringing him forward to the World, in a point of view that ought, in some respect or other, to be peculiarly fit and becoming; and his approbation of the measure ought previously

previously to be obtained. To the present purpose no such person occurred, with whom the Author could use that freedom; but just in time, before the Printer had done with his part, the idea arose of the following

DEDICATION,

To all Persons in the *Government* of the Public, whose Plans and Influence *ought* to be directed to the safety, happiness, and improvement of Mankind :

To all Persons in such a *conspicuous rank and situation of life*, as occasion their example to be followed, and become the unavoidable Fashion of the Times :

To every Person, whose *genius, talents, and disposition*, give him a power, in his sphere, to encourage good things, and set good examples :

To every *Society for Arts, Sciences, and Improvements* :

To

To every *Humane Society* in particular, who so generously affociate, and contribute their private funds for the Saving of Lives from Drowning :

To the *Marine Society*, who, in like manner, by private subscription, clothe and fit out for sea numbers of poor boys :

To those more immediately concerned *Seafaring People*, especially *Commanders and Captains at Sea* ; and all others, in whatever way of life, who may happen to be exposed to the *Danger of their Lives by Water* :

To every *Officer* who, either in practice or theory, enters into the spirit of the *Art of War*, with its innumerable and endless contrivances and stratagems, both offensive and defensive, all tending to overreach and gain advantages of the enemy, and to preserve the lives and raise the courage of their own party ; by which, in all ages and in all countries,

Com-

Commanders of Genius and Spirit have
justly acquired universal admiration :
To every *Lover of Swimming and Bathing* ;
and to every person who knows, or may
know the *health, cleanliness, and flow*
of spirits, which Bathing and Swimming
afford :

The following Dissertation, with its
subjects, the new Preservative from
Drowning, and Assistants in Swim-
ming, are humbly recommended
to their careful examination, confi-
deration, use, and patronage,

By their most respectful

Humble servant,

R. MACPHERSON.

London, July 31, 1783.

C O N T E N T S.

	Pages.
I NTRODUCTION,	5
Swimming,	7, 32, 34, 40, 124, 125, 126
Experiments,	9 to 15, 20, 123
Air Jacket,	10, 24
Air Balls,	10
Marine Collar and Belt,	10, 24
Cork,	11, 12
Cork Jacket,	11, 22
Other Devices,	12, 27
Support necessary in water,	13
Power of Cork,	13
Formation of the Preservative,	15
Description of it,	17, 24
Quick application to the body,	17, 125
The effect in water,	18, 20, 123, 125
Additional Pieces,	19, 31, 125
How to be provided,	20
Comparison with other Devices,	22, 27
Great use it should be of,	25 to 37, 121, 122, 126, &c.
Shipwrecks,	26, 126, &c.
Venetian Buoy,	27
Bamboo Preservative,	27
Life Buoy,	27
Falling over-board,	27
b	Going

Going on the ship's sides,	-	28
On the yard-arms and aloft,	-	28, 29
Boarding,	-	28
Defertion,	-	30
Room for the Preservatives on board ships of war,		30
Inundations and floods,	-	31
General use,	31, 121, 122, 126, &c.	
Use to the Army,	-	32, 33, 70
Dexterous swimming with the Preservative should be acquired,	-	32, 124, 125, 126
Should be part of the discipline of seamen and sol- diers,	-	33
Great use to them,	-	33, 70
Encouragement to Pilots and others to assist the distressed,	-	34
General Objections,	-	37
Peculiar fitness and propriety of the Preservative for the human body, and our purposes in water,		40

A P P E N D I X.

Webbed Gloves and Ankle Valves for Swim- ming,	-	43, 126
Vessels for Food,	-	43, 123
Weapons,	-	43, 70, 113
Leather Cap,	-	43
Some Accounts of Losses of Lives by Water,	44 to 122	
Affecting but necessary,	-	44
The use that may and should be made of reading or hearing of such misfortunes,	-	45
Benefit of bathing and wearing wet cloaths, when fresh water fails,	-	74, 116
		Brave

Brave and humane conduct of a Pilot rewarded by the King of France,	-	88
Method of catching rain-water at sea,	92,	115
Use of Bags, water-proof, filled with gun- powder,	-	113
Great amount of the number of lives lost by water,		121
Loss of lives in bathing and pleasuring on the water,	-	122
Concluding reflection,	-	122

A D D E N D A.

Effect of the Preservative in rough water,		123
Vessels for Food,	-	123
General Directions respecting the Use of the Pre- servative,	-	124
Review of the different circumstances in which lives happen to be lost, with necessary directions thence arising,	-	126, &c.

1. The first part of the paper is devoted to a general
discussion of the problem. It is shown that the
problem is of great importance and that it has
not been completely solved. The author then
presents a new method for solving the problem.
This method is based on the use of the
variational principle and it is shown that it
leads to a more accurate solution than the
previous methods.

2. THE METHOD

The method is based on the use of the
variational principle. It is shown that the
problem can be reduced to a problem of
minimizing a functional. This functional is
defined as follows: $J(u) = \int_{\Omega} |\nabla u|^2 dx$. The
problem is then to find the function u which
minimizes $J(u)$ among all functions u which
satisfy the boundary conditions. The author
shows that this problem can be solved by the
method of steepest descent.

P R E S E R V A T I V E

F R O M

THE Author of this Contrivance, in Winter, 1779, happened to meet with a fall, which strained one of his legs, and confined him to bed for some weeks : being otherwise in good health, he at times diverted himself with newspapers, magazines, and the like. Captain Farmer, of the Quebec frigate, at this time had his desperate engagement with the Surveillant French frigate, in which the Quebec happening to take fire, the Captain and all his crew, excepting one master's mate, two young midshipmen, and twenty-seven common men, were either blown up, burnt, or drowned : seventeen of these were picked up by a boat which the Rambler cutter hoisted out to their assistance ; and the other thirteen were taken from the wreck by a Prussian vessel.* Struck with the

* Since writing the above, the Author is happy to have met with an authentic contradiction of a mistake of Lieutenant George, of the Rambler cutter. He had said, that while

loss of a man, so much respected and regreted as Captain Farmer appears to have been,* and of the other many valuable Officers and seamen that perished with him, the Author could not help exclaiming—Good God! are the Cork Jacket, the Air Jacket, the Marine Collar and Belt, and the other devices that we have heard of, as Preservatives from Drowning, of no use? and can nothing be contrived, or no improvement be made upon these devices, that may become of general use, and so preserve the innumerable lives that are subject to be lost at sea; especially near shore, or in the presence of other vessels, which is most commonly the case with shipwrecks? The Author, whose business for many years before (though not then) had been general improve-

while the boat was picking up some of the Quebec's crew, she was fired upon by the French frigate: but this appears to have been a mistake of some of the people in the boat; and is supposed to have arisen from some of the Quebec's guns going off while she was burning; for it has been since proved, by the concurrent testimony of a number of the men and the Officers belonging to the Quebec, who were taken up, and saved by the people of the Surveillant, and were afterwards treated by them with the utmost tenderness and kindness; notwithstanding the French were very sore and distressed themselves, their ship nearly reduced to a wreck, and their brave Captain in the agonies of death; who spent his last breath in declaring the pleasure he received from this instance of their humanity and civilization.

* His Majesty, in consideration of Captain Farmer's singular professional merit, settled an annuity of 200l. per annum on his widow (then big with her seventh child) and 25l. per annum on each of her children.

improvements, instantly determined, as he might find opportunities, to turn his mind to this affecting subject, to examine the nature of the before-mentioned Cork Jacket, Air Jacket, &c. together with their inconveniences; for inconveniences, he was sure, they must be attended with, that after being so much and so long talked of, they were not yet in use; and he resolved, if possible, to contrive something so portable, cheap, and easy of application, as every person going to sea, or to swim, may be tempted to take with him. He was encouraged in this pursuit, by the recollection of some observations made by Doctor Franklin to a friend, whose new employment required him to be often on the water. The Doctor had advised his friend, though then advanced in life, to learn to swim; and among other valuable remarks, told him, that though the legs, arms, and head of a human body, are somewhat heavier than fresh water, yet, the trunk, particularly the upper part, from its hollowness, is so much lighter than water, as that the whole of the body, taken together, is too light to sink wholly under water; but some part will remain above, until the lungs become filled with water, which happens from drawing water into them instead of air—That the legs and arms are lighter than salt-water.—That the human body would not

Swim-
ming.

sink into salt-water, though the lungs were filled as above, but from the greater specific gravity of the head—That as to our cloaths, their additional weight, while immersed in the water, is very inconsiderable, the water supporting them; though when the person comes again out of the water, he will find his wet cloaths very heavy indeed—That a person falling into deep water, though he could not swim, if he could but have such presence of mind as to avoid struggling and plunging, and only let his body take the position it would of itself naturally fall into, that is, an upright posture, (occasioned by the greater buoyancy of the breast, and gravity of the inferior parts) and then bear his head backwards, so as his face may lie flat, looking up to the heavens. In that posture he would find the water so support him, that he could not sink, that his face would be above the water, that he would have freedom to breathe, rise an inch higher every inspiration, and sink again an inch every expiration; but never so low, as that the water will come over his mouth—That if the head is not inclined backward, and the person makes no motion of his own, the body will sink down in a perpendicular posture, but not far; for it will continue suspended in that upright posture, the upper part of the head above the water: but as both the mouth and eyes,

in

in that case, will be under the water, no man can continue long in that situation; yet, as said before, if he will but bend his head backward, he will find himself immediately rise, in so much, that his face and mouth will be the parts above the water.*

It occurred, that the Preservative, so much wanted, must be composed of some material lighter than water, and most probably cork or air; and air being above 200
 A 2 times

Experiments.

* It is the air within the lungs that keeps a man thus suspended; for, when instead of air he draws water into the lungs, he then becomes totally heavier than water, and sinks deeper, if he cannot extricate himself by swimming. In this posture, if the person could further have such presence of mind and composure, as (still keeping himself lying back, and as flat as possible) to draw his feet up towards his body, and then push them smartly out; he would swim upon his back. Swimming upon the belly, though generally first learned, is not so easily acquired, it being impossible to float in that posture, without some proper motion of the hands; and a little practice is necessary, to obtain the proper stroke of both hands and feet. In salt water a person will find it very easy to float upon his back, by only stretching himself flat along the water, and keeping the back part of his head immersed. In that position he cannot sink, but will float about just as the water moves.

What Doctor Franklin says of a man's being supported without any motion, but only bending his head backward, the Author found to be true as to himself; but by actual experiments he further found, that all men are not of the same specific gravity: two persons of the same weight were found very different in bulk, and consequently, the most bulky easiest supported in water. He therefore presumes, that what the Doctor alledges may be generally the case, but not always; and he fears, some persons will be found so much heavier than water, that nothing can save them from immediate drowning, but swimming or some artificial assistance.

times lighter than cork, the Author's endeavours were first applied to the consideration of Air Balls and Air Jackets.

Air Jacket.
et.

He provided himself with an Air Jacket, which he found a very ingenious contrivance, and when first made, and in perfect order, well adapted for enabling a man both to float and swim; but it was a bulky affair, not easily made, still less easily kept in order, expensive, and in other respects

Air Balls.

not adapted for general use. He next considered and made experiments upon Air Balls, which also proved expensive; and he found, their resisting the water could not be depended upon: it being no easy matter to confine air against the searching power of a weight of water. In short, he was convinced, that a man's life ought not to be trusted to any confinement of air, that would be convenient for common use. It was with the utmost difficulty that he could meet with what is called the Marine Collar and Belt: he found it composed of three Air Balls, made of thick stiff leather, varnished, each about nine inches long, six broad, and three thick; of a shape something like half an egg cut lengthways; one was fixed upon the back, and the other two upon the sides, under the arm-pits, or on the breast. Upon trial, it proved very ill adapted for the purpose intended; and thence he was satisfied how

Marine
Collar
and Belt.

it happened, that he had so much difficulty in finding one.

He next turned his attention to Cork, ^{Cork,} as the lightest substance next to Air, and which, contrary to most other substances, has a natural power of repelling or refusing to connect itself with water. To make sure work, he then provided himself with ^{Cork} a Cork Jacket; ^{Jacket,} although at first view he saw it was too bulky and expensive for general use; and to his surprize, the Patentee who published it, made a merit of its only keeping a man afloat, and instead of furthering, that it hindered swimming.* Upon trial it was found incommodious, and proved, as said before, in some degree a hindrance to swimming or action of any kind. It forced a person who could not swim, to lie upon the water like a dead log, on his back, on his belly, or to a side, just as the balance of the cork and motion of the water happened to incline him. But what is worst of all, the cork being spread all around the trunk of the body, and sometimes the Jackets made with loose flaps round one's middle, incline the person more to lie than keep in an upright posture; by which means, when a man who could not swim

A 4

hap-

* The reason he gives (Introduction, page 13) is, that it thereby proves the less encouragement to desertion from ships of war; a circumstance which shall be here invalidate in course.

happened to be thrown upon his belly, the Cork Jacket did not hinder his face from sinking into the water ; so that he would have drowned, if assistance had not been given him. This trial was made in deep water, and in a way extra-favourable for the Jacket ; for, having been made for a big-bellied man, though now put upon a middling sized man, and being too wide for him, it was equally folded over his breast and belly, like a double-breasted coat, which thereby placed the greatest power of the Cork under him, when he lay upon his belly. This contrivance, for these reasons, the Author also laid aside ; though determined to take it up again, and endeavour to improve it, if he could not do better.

Other
Devices.

He made search into books for a description of the Bamboo Preservative, (which, he had read, was used in some parts of the East-Indies), and indeed for every thing that had been published upon the subject under consideration. It is needless now to enlarge further upon any of the various methods that, in the course of his researches, he found either in practice or theory.

Cork.

Cork appeared, upon the whole, to be the fittest material ; and all that seemed requisite, was, in the first place, to find the least quantity that could support a man's head above water ; next, to apply that quantity

quantity to the body, so as to prove no impediment to action, but on the contrary, a help to swimming; and lastly, if possible, to reduce the whole contrivance to simplicity, a quick and ready application, and so cheap and portable as general use requires.

He made experiments upon the weights of different persons, both in and out of water, and of the power of different kinds of Cork; with a view, in the first place, to form some general rule, if possible, to proportion the weight of cork to the weight of each person; but he found the specific gravity of different men, and also of the different kinds of cork, so various, that no general rule could that way be formed. He made experiments, by supporting a man with his head above water, hanging to the scale of a balance, and weights put in the other, which showed how many pounds and ounces thus balanced him in the water. A man of a middling size was supported by seven pounds ten ounces, and a big man by sixteen pounds; but as said before, he found some men, of the same bulk, very different in weight. By immersing cork into a vessel full of water, and measuring or weighing the water thrown out by the immersion, he found the specific gravity of the cork; and by actually trying what weight the cork would support, he found both these different ways of trying the power

Support
necessary
in water,
and
power of
cork.

power of the cork to agree, and to run from two to seven ; that is, for example, one pound of the worst, or heavy, woody kind of cork, could support but two pound weight, and was as bulky as three pounds of water ; whereas, one pound of the best fine light velvet cork supported seven pounds, and was as bulky as eight pounds of water. In these ways it would be troublesome for every one to find what cork would support him. The best rule, then, that perhaps can be given, is, that each person should actually try in water what will sufficiently support him. The Author is a middling sized man, not heavy for his size, and he found, one pound ten ounces of common cork, or one pound of the finest cork, support him in an upright posture, with his arms under the water ; the moment he lifted his arms to his head, he sunk down, so that the water covered his eyes ; and the instant he let down his arms, his whole head rose again : two pounds six ounces of the common or middling quality of cork, or one pound and half of the finest supported him, holding three pound weight above his head ; and that much he judged sufficient for him on common occasions, the three pound weight additional being to make allowance for that proportion of the power of the cork, which it might come to lose by being thoroughly

thoroughly soaked in water (and that by actual experiments was found to be about one fifteenth part of the power it had when put dry into the water), to enable him to carry weapons or some conveniences along with him, or to have the more freedom of action, or even more power in the water. The Preservative that is thus found sufficient in soft river water, will certainly prove sufficient at sea, salt water being remarkably stronger than fresh water. And here it must further be observed, that what we carry about with us may be supported under water, and yet may depress us when raised above it: for instance, a man just supported with two pound weight in each hand, his arms and the weights under the water, will sink considerably the moment he raises these weights above the water; and will rise again the instant he lets down his arms with the weights. This difference is owing to the support which the water gives, or the resistance it makes against the admission of any body; and which resistance is more or less according to the specific gravity of the body. The Author considered it the more necessary to make full trial of the common cork, because he found there was rather a scarcity of the finest kind.

Having thus satisfied himself respecting the quantity of cork necessary, the Author's next study was, how to apply it to the body,

Formation of
the Preservative.

body, so as to support the head above the water, to help rather than hinder swimming, and to admit of action, working, or fighting, both in and out of water. These considerations led him to split the quantity of cork into two equal bodies ; one to be applied to the breast, and the other to the back ; to place them out of the way of the arms in action, and of the bending of the body ; to collect them into as little room as possible ; and form them of the shape most convenient for swimming, and for floating or acting in an upright posture. And lastly, his study was, how to unite and fix these breast and back pieces in the most simple and expeditious manner. He confesses he could not make the bulk less, with safety, nor place it otherwise, without detriment ; nor make the Preservative, upon the whole, less simple, cheap, and commodious. It was troublesome to shape the breast piece, so as to admit the free play of the great sinews between the arms and the breast, and to avoid hurting the collar-bone : the back-piece too must permit the bending of the arms backwards. To form them, so as to obtain all these advantages, is the only difficulty in making them ; and that difficulty may prove more than most people would imagine, though he has not gone into mere curious niceness in the formation. He wishes others may still improve upon the

the

the design ; but all that he can farther propose, will be found in the Appendix.

The Preservative thus contrived, may be described as follows, reference being had to the Copper-plate Sketch fronting the Title-page : The two bodies of cork, at a medium about one pound weight each, are covered with canvas, or whatever else the person pleases ; one shaped for the breast, somewhat concave on one side, and a kind of convex on the other ; the other body is shaped for lying on the back, and even leaning a little upon the shoulders : the two bodies are joined together by straps, which, on each side of the person's neck, lie across his shoulders ; and when the Preservative is first provided, are fitted to his size by buckles. Each of these bodies of cork has fixed to its lower end a broad belt ; to the breast belt is fixed four strings of stout tape, and the other belt has four corresponding button holes. The strings, when the Preservative is first fitted, are laced through the button holes, and then the end of the two strings on each side are tied together, so that they can never afterwards unlace. Affixed to the middle of the back belt is also a lesser belt, made of fine flannel, thrice folded, corresponding with which in the breast belt is another button hole. Upon any sudden occasion, this Preservative can be instantly thrown over the head, whether

Descrip-
tion of
the Pre-
servative.

Quick
applica-
tion to the
body.

the

The effect in water.

the person be clothed or naked, the head passing through between the strings and shoulder straps; and the strings being brought over the arms, are, by taking hold of the knot upon the end of each pair, instantly drawn tight, but not hard, and tied under the breast piece; then the flannel belt is brought forward between the thighs, laced through its corresponding button hole in the breast belt, and there tied with only one knot.* Thus accoutred, a person that could not swim, after satisfying himself in shallow water of the power of the Preservative, and seeing how it supported another person in deep water, allowed himself to be tumbled headlong into the deep water, when, without any exertion of his own, he found himself immediately rise, and that he was supported in an upright posture; the whole of his head above the water, his feet hanging down, and his arms at perfect liberty either to swim, fight, or work in any manner. If a man was to faint, or sleep upon the water, he would still be supported in the same upright posture; and a swimmer finds himself thereby enabled to swim easier and faster, both upon his back and belly.

Only

* The method of lacing and tying these belts and strings, though simple and quick, may not occur to every one, and therefore each person, at first providing himself with the Preservative, should be shown how it is fitted and put on the body.

Only two more remarks appear proper to be made here. In shallow water, where our feet cannot hang freely, it is almost impossible to do the Preservative justice, in observing how upright it keeps one in deep water. Endeavouring to keep our feet from the ground in shallow water tumbles us about ; whereas, in deep water, we find ourselves, without any exertion of our own, perfectly upright, and ready for any kind of action. The other remark is, that this Preservative being balanced on the breast and back, the whole of its power is felt only when one is in an upright posture in the water ; and little more than half of its power while swimming on the belly. Lying or swimming on the back is easy with or without cork ; but to render swimming on the belly still easier, the more powerful the Preservative is made, the better, provided it does not keep the person too much above the water ; and the more bulky it is, the less portable and commodious.

Persons who cannot swim, may therefore find a light Preservative insufficient to keep their mouth out of the water, when they happen to lie upon their belly ; and so may even a swimmer, when tossed about in a rough sea : therefore, that the Preservative for common use may be the less bulky and more commodious, the Author advises, that two small additional pieces of cork, of equal weight,

weight, be provided for cases of extremity ; which at times may be carried in one's pocket, and can easily and quickly be united with the others, and so render the whole very powerful. These pieces, and the method of fixing them, may be seen with the Tradesmen who sell the Preservatives.*

How to
be pro-
vided,

The Author at first intended to give the world full and immediate freedom to make, dispose of, and use this Invention; and to apply for his reward otherwise ; but such application being tedious, troublesome, &c. the Author has been advised to take out a Patent. He shall, however, spare no pains to put the making and disposing of them into proper hands, and to confine the prices as low as circumstances will admit. Such as
want

* All the experiments above mentioned were made in a calm, undisturbed part of the river. But since, the following trials of this Preservative were made going through the center arch of London Bridge, when the fall and agitation of the water there were at the greatest; and the Author has been told by a Sea-Officer (who entered so much into the spirit of the affair, that he made the same trials) that the convulsion of the water there is greater and more difficult to get through, than what is commonly called a heavy or troubled sea; of which last he had certain experience, when he once happened to fall over-board, and was taken up above a mile astern of the ship. The great body of water above the bridge not getting so easily through the arches, as the tide ebbs below the bridge, makes a fall and very strong current, particularly through the great center arch. That strong current darts with amazing force into the water below, and with the meeting there of the different streams from the other arches, makes a great convulsion, boiling, whirling, and beating back of the
water,

wait them, will apply to the persons advertised and authorized to sell them. The Author recommends it to every person, at first providing them, to chuse (or have them made on purpose) of the finest cork, and nicely to fit the body, so as to prove no hindrance to motion or action of any kind, either in or out of water; and in particular, that they do not hurt the body any manner of way in swimming upon trial for a considerable

B time.

water, which is rather frightful to encounter with. The place, at such times, has been compared to Hell-Gate, near New-York, where the Eastern Hudson River, in like manner, meets with the tide of Long Island Sound. Determined to know what the Preservative could bear in such places; or a troubled sea, the Author wished to have trials of it through this fall and convulsion of waters; but he could not desire any other person to encounter a danger that he did not understand himself; and danger he understood there might be in making this experiment; for many boats have here been overset, and numbers of lives lost: indeed, few boats will venture through the bridge, at the time of this fall. He is certainly informed, that when a comparative trial was made between the Cork and Air Jackets, though the person in the Air Jacket did not sink, yet the person in the Cork Jacket was swallowed up, to the great terror of his friends, who thought him utterly lost, until, after some time, he appeared thrown out of the water a great way below the bridge. The Author therefore having confidence both in the Preservative and his skill of swimming, ventured to make this experiment first himself: and finding that the Preservative even here did not fail, some of his friends very readily followed his example. Trial was also made of suffering themselves to be carried along with the stream, without making any motion of their own. But as there is danger of being struck or rubbed upon the pillars and starlings of the bridge, and also upon shoals; all persons who cannot swim, or may be careless or unskilful, are advised to forbear such trials.

Compa-
rison of
them with
other de-
vices.

time. Only one other direction may be requisite, that to prevent mistakes in a matter of such consequence as the safety of their lives, that they try and satisfy themselves of the sufficiency of its power in water. The following remarks, and comparisons between this invention and others intended for the same purpose, will not be amiss. In the first place, the impropriety and inconvenience of these other inventions have been already mentioned in pages 9, 10, and 11. The propriety and effect of the new Preservative is also explained, page 31, &c.

Dr. Wilkinson, the publisher of the Cork Jacket, Sect. 17, says, “ It is sufficient ;
“ that his jacket, tho’ singly made, cost
“ but two shillings and sixpence ; and that
“ full fifty men may be fitted with them
“ for about five pounds ; that is, two shil-
“ lings each.” His introduction bears,
“ That he informed the Committee of the
“ Society of Arts and Sciences, that one
“ pound weight of cork was sufficient for
“ a middling sized man, and that the price
“ of the Jacket will not exceed five shillings,
“ old canvas being supposed to be used.”

This gentleman’s pamphlet shews, that he has been at so much pains, to be useful in searching for, and publishing various means for preserving the health and lives of seamen, and recovering drowned persons, that it rather gives pain, to have occasion even to
seem

seem to differ with him. The Annual Register, 1759, bears, that Mr. Doubourg, a gentleman fond of swimming, but subject to the cramp, was led to the contrivance of a Cork Waistcoat, which is exactly described as Dr. Wilkinson first described his, though different from those now made; and Mr. Doubourg says, his Waistcoat does not weigh above twelve ounces, and may be made for about five or six shillings; that he tried it in the Thames, and found, it not only supported him in the water, but that even two men were not able to sink him, though they made their utmost efforts for that purpose. As such mistaken accounts, tending only to make people believe, that less cork will answer than is really sufficient, and thereby occasion the loss of many lives, and that the expence of them is less than really it is; can answer no good purpose, but on the contrary, occasion disappointments, and unhappy reflections; the Contriver of the new Preservative was anxious to shun such blunders, and would rather wish to err on the safe side; though he confesses, that not being fond of error on any side, he has endeavoured to find, establish, and tell facts, and at the same time to give reasons for his advising rather too much than too little cork to be used. He is afraid Mr. Doubourg, in particular, must be in some strange mistake, respecting the weight and power of his

B 2

Waistcoat.

Waistcoat. By actual experiments it is found, more cork is necessary, even of the finest that can be met with, than either of these gentlemen mentions; even the quantity that the Doctor mentions will not be found sufficient for some heavy men, greatly below the middling size. The shop price of a Cork Jacket is eighteen shillings or a guinea; but much dearer when made exactly to fit the body. When rolled up like a cylinder, it was (as bulky as a child), twenty-nine inches long, and six and a-half or seven inches diameter; the weight from three to five pounds. The cork taken out of a middling sized one, weighed three pounds, and consisted of sixty-four pieces, each of which had been sewed all round within double cloth. The price of the Air Jacket was two guineas, and of the Marine Collar and Belt twenty-seven shillings. The Air Jacket weighed near seven pounds. The new Preservative even burthened with a Patent, costs from to according as it is made of fine or common cork, and as it is mounted with fine or common materials. It weighs from one and a-half to four pounds and a quarter; of which, from one to three pounds and a-half is cork. A middling sized one occupies, in the corner of a chest, the space of twelve inches long, eleven broad, and six and a-half deep, and may be carried in a handkerchief. When made of the finest

finest cork, a middling sized one is not five inches thick, the one piece lying above the other, and contains only one pound and a-half of cork. The additional pieces mentioned in page 19, will make the whole a little dearer to such as choose to accommodate themselves in that most compleat manner. But in any of these ways the expence can be but little, and vanishes to nothing, when the use and conveniency of them is considered. Although this improvement was first resolved upon in the year 1779, the Author could not properly produce it to the world before the month of July, 1783. The experiments necessary could be made only in the few fair days we have of summer in this country, and when he, and the friends he persuaded to make trials with him, could spare time. Besides, every person who employs tradesmen, well knows the delays and disappointments which they occasion. It even cost more experiments than the Author can be free to mention. But since he first turned his mind this way, he could not avoid remarking, that almost every day, or week's news, especially during war and stormy seasons, brought accounts of many valuable seamen, passengers, and others, lost by the wreck of ships near shore, sunk in battle, drowned by inundations and other accidents, and not a few when bathing, swimming,

Great use
it should
be of.

ming, and amusing themselves on the water—Amounting to thousands yearly, that might have been saved by this Contrivance, had it been then in general use. Some instances of the loss of lives in these ways will be given in the Appendix. In reading history, antient or modern, the use that this Preservative might have been of, and consequently may be in future, will often occur. The Author perceives many different ways in which it may be of service to the navy, army, and in private life; some of which only shall be mentioned at present.

Ship-
wrecks.

Shipwrecks generally happen upon or near shore, being mostly occasioned by the ships running aground, or striking upon rocks or shoals. Some, but very few, comparatively speaking, founder at a great distance from land. In all these cases, the misfortune seldom happens instantaneously; the seamen generally have a hard and long struggle for the safety of the ship. There will be very few instances of shipwrecks so sudden as not to admit of putting on this Preservative; and then near land, even if the persons cannot swim, there will be many chances of their being taken up. Such as can swim, will do much for themselves, and even the tides sooner or later will bear them towards shore. In the few cases of foundering at a great distance from land, all that
can

can be said is, that this Preservative will give them every chance that they can have of meeting with some passing ship, as by its means, if no better can be, they will be kept always afloat.

The Venetians, we are told, have always ^{Venetian} upon deck a kind of buoy, which, when a ^{buoy,} man falls over-board, is immediately thrown out, that if he can possibly get to it, it may help him to float till he can be taken up. In some parts of the East Indies the natives ^{Bamboo} have always on board Bamboo, which ^{Preserva-} upon occasion, they fix about their shoulders ^{tive.} to keep them floating. Some men of war, ^{Life-} and the East India Company's ships, have ^{buoys,} what they call a life-buoy fixed to the stern, which, when people are observed to have fal- ^{Falling} len over-board while the ship is under ^{over-} way, is suddenly let out with a length of ^{board,} two hundred fathom rope; so that if the persons who have fallen into the sea happen to meet with it, or can swim to it, they may get upon it, or hold by the knotted ropes all around it, until they can be taken up. But if these persons cannot swim, they have little chance of meeting with it, and generally perish before the sails can be put back to stop the ship's way, and a boat hoisted out for their relief; even swimmers have not been able to meet with this buoy, and have been upwards of a mile a-stern before the boat could reach them. If numbers fall

together, which frequently happens, when ropes, and sometimes even the yards and masts give way, it is a long time before some of them can be taken up; by much too long for such as cannot swim, and even for swimmers, without a Preservative. But with the new Preservative upon them, they will infallibly float until they may be taken up, and it will assist them in swimming.

Going on
the ship's
sides,
and on the
yard arms
and aloft.

When seamen have occasion to go upon the ship's sides, to throw the lead, or for other purposes; or to go upon the yard-arms or aloft; and, indeed, at any time when danger may be foreseen, the Preservative should

Boarding.

be put on. It may even be so made, as to be put on with their jackets, and wore for common at sea. It will be particularly useful in boarding an enemy's ship, as it will not only preserve them from drowning, but may be the means of saving them from pushes or cuts of weapons, and even weak shot from pistols or musquets; against which, cork makes a very considerable resistance. In attempting to board, many are tumbled into the sea; sometimes they are received on boarding nets, and twenty or thirty tossed into the sea at once; sometimes on false decks, and blown up by gunpowder. When an enemy's ship of force has struck, the conquerors take possession of it as soon as they possibly can, that the enemy may not have time to repair their rigging,
and

and run off: and it frequently happens, that in taking possession, boats overfet, and the boarders are tumbled into the sea; especially if the water be rough, and the enemy again make resistance.

Upon consulting Sea Officers, the Author ^{Going} does not find that the new Preservative will ^{aloft, and} be inconvenient in any respect, excepting, ^{upon the} perhaps, the breast-piece, in going upon ^{yardarms} the yard-arms, and passing over the projection of the tops; they even suppose, that though some persons may find such difficulty, yet others will not. The Author is determined to have actual trials made of this; after which, if necessary, he will recommend, that for going upon the yard-arms or aloft, the breast-piece be fixed below the back-piece, by a strap buckling before: and then, if the person should fall into the water, he has only to keep upon his back (which can be easily and safely done, whatever the agitation of the water may be; and one that cannot swim, may at once be taught by a swimmer how to do so; or he will find it easy, upon trial, with the corks upon his back) and he can easily bring forward the breast-piece, and fix it properly upon his breast. A simple and easy method of doing this shall be exemplified, if necessary.

The Author has not found any objection made to this Preservative being used by every

Defer-
tion, and
room for
the Pre-
servatives
on board
ships of
war.

every person on board trading vessels, and by the Officers on board ships of war; but two objections have been made to their being allowed the common seamen on board the latter—That it would enable them to desert, when the ships were at anchor; and that there is no room for these corks on board ships of war. Every seaman has it now in his power to provide himself with this, to him, invaluable conveniency; and the Author cannot avoid thinking, that in time, these Preservatives will be much encouraged on board ships of war. Captain Cook, the great Circumnavigator, was justly esteemed and honoured for the extraordinary care he took in preserving the health and lives of his men. The happier and safer the situation of a seaman is rendered, the more ready people will be to go to sea; and the very confidence that they may have, in the chance which these Preservatives will give them of saving their lives in case of shipwreck, must prove a great encouragement to the seafaring life. While ships of war lie at anchor, the Officers at present use some means to prevent desertion; and though all the crew had the Preservative, it is presumed the Officers would be put to little more trouble on that account. Proper watches must be kept on these occasions at any rate; and if necessary, all the Preservatives might be properly secured.

secured. The saving of the seamens lives, and the many uses that will otherwise be made of this Contrivance, far outbalances the little consideration of occasioning some additional trouble, if any, to prevent desertion, when the ship lies at anchor. Then, with regard to room for the keeping of the seamens Preservatives, the Author is informed, that there is sufficient either in their mess-births, or their bags, or between the beams under the decks. If each man cannot keep his own apart from others, all those for the common men may be made alike; and then, as they have occasion, each may take the first that comes to hand.

Some low lands, near the sea, and on the sides of rivers, are very much sub-<sup>Inunda-
tions and
floods.</sup> ject to inundations and sudden floods; of which instances will be given in the Appendix, where vast numbers have been lost. All persons in these perilous situations, and indeed wherever danger by water may be apprehended, should provide themselves with Preservatives; especially, as the one now recommended is so portable, commodious, and inexpensive. When neatly made, and of the finest cork, its bulk, under a loose kind of dress, will not even be very perceptible; and, as said before, when shipwreck may be foreseen,
and

General
use.

and danger of floating long upon the water, additional pieces can soon be affixed.

Use to the
Army.

When Officers or soldiers on land are marching, or going to battle, where they may have rivers or water to encounter with, as in many of the instances given in the Appendix, such Preservatives (perhaps varied a little in the make, on purpose, for the land-service) would prove no inconvenience at all; but on the contrary, besides saving them on water, might happen also to save them in battle, the cork, as before mentioned, making a considerable resistance against the stroke or push of a weapon, or a weak or part spent-shot from a pistol or musquet. Commanders frequently have occasion to send parties across rivers, where boats cannot be found. Cæsar, in his Commentaries, (Civil War, lib. 1. cap. 16.) says, “ Our foragers were
“ greatly incommoded by the pursuits of
“ the light-armed Lusitanians and Spani-
“ ards, who were acquainted with the
“ course of the country, and easily swam
“ over the rivers; as they never go to war
“ without being provided with bladders or
“ leathern bags for that purpose.” In

Dextrous
swim-
ming with
the Pre-
servative
should be
acquired.

short, every seaman and soldier, and indeed every person who may at times be exposed to danger, upon water, should learn the use of this Preservative, and to swim dexterously; especially as in doing so, they

they but divert, exercise, clean and refresh themselves, in a most agreeable manner, in sultry weather. With seamen and soldiers it should certainly be adopted, as a part of their regular and necessary discipline ; for, besides saving them from accidents, it will be found useful on many occasions, reconnoitering, sending intelligence and orders, surprising, attacking, defending, pursuing, and retreating. Even parties, whether of horse or foot, upon particular expeditions, may draw along with them, upon slight frames with wheels, one or more light boats, which would carry their arms and upper cloathing upon the water ; so that the moment they got to land, they could recover their arms, and form for action, if there was occasion. With the help of the Preservative, the men could safely swim through the water—the horses and boats could be drawn after them—The wheeled frames might go over the water, either under or above the boats, as might be found convenient. Cæsar (Civil War, lib. i. cap. 17.) having occasion for forming some boats in a hurry, caused to be made such as he had before observed in use among the Britons—“ Their keels and
 “ lower part were made of light timber,
 “ and the sides of wicker, covered with
 “ skins.”

Should be
 a part of
 the disci-
 pline of
 seamen
 and sol-
 diers.

Great
 use to
 them.

Encou-
ragement
to Pilots
and
others; to
assist the
distressed.

If this Preservative was in common use, Pilots and Boatmen upon the coast would not be so much afraid as they generally are at present, to venture out to the assistance of the distressed; and if premiums were given to such as exert themselves on these occasions, the effect would be great. The Humane Society in London have done much in this way, by private subscription, for the *recovery of drowned persons*; in the eight years since their first institution, they have bestowed premiums in 845 cases; that is, for the recovery, or attempts to save 845 persons, 136 have, by their means, been restored to life, and 327 preserved from imminent danger of drowning; and all this, or the greatest part, upon the River Thames, or near London. It gives pleasure to a benevolent mind to understand, that like societies have been formed in other countries—The Author hopes, in more than he has heard of; for he has only found mention of them in Holland and Scotland.

Swim-
ming.

Every person learning to swim should use this Preservative; to try and prove which, several, who could not swim, were employed; and it was remarkable, how easily, pleasantly, and soon, with its assistance, they learned to swim. Indeed, where there may be possibilities of danger, none should go into the water without it. And

as this Contrivance renders swimming (perhaps the best and most healthy of all the bodily exercises) both safe and agreeable, the Author begs leave to add, that now he thinks every person should learn and practise it. It exercises at once all the bodily faculties, especially the breast, in the easiest and most natural manner. The very relief and flow it gives to the spirits, in sultry weather, and its cleansing and purifying the body, renders it delightful to such as will but try and observe its effects; of which some idea may be formed, by only considering how uneasy a person feels, when he neglects, or is long hindered from washing his face, hands, or feet; and the great pleasure and relief he immediately feels after washing and cleansing. Care only need be taken, not to stay long in the water, nor remain naked in the open air: the neglect of which caution, frequently gives cold to persons who seldom bathe; and boys should be hindered from bathing too often, because excess in that way is weakening. Many persons, by rashly trusting too much to their skill in swimming, have suffered themselves to be involved in danger, beyond their strength or skill to extricate, and have perished. Some have gone too far out from land or from their ship, and found their strength exhausted before they could

could return.] Some, while no assistance was near, have been seized with the cramp; others, trusting to their swimming, have left a sinking vessel, at too great a distance from shore, and perished; while those who kept by the wreck have been saved. In all such cases, it was not the art of swimming that was to blame, but the people's own imprudence. On the other hand, innumerable have been the instances of persons being saved by swimming, and of others being lost; that could not swim, and would have been saved, if they could have swummed. When a boat oversets, such as cannot swim, if they meet not with immediate assistance, must inevitably perish. The case is the same, when a person falls over-board, while the ship is under way, or when she founders: whereas, a swimmer, if near shore, or near any other vessel, can make for it, or can support himself a considerable time, until a boat is sent to take him up. But even a swimmer cannot support himself long. This Preservative will keep him floating longer than he can live, and affords him him every chance for his life. When a person has it thus so easily and safely in his power to acquire the capability of floating; or going a shore, or advancing towards a ship or a boat, that may take him up; what stupidity would there be,

in

in saying, that a man had better do nothing for himself, and leave all to fate? Many instances have there been of all those that could swim being saved, and all those that could not being drowned: this Preservative will keep both afloat, but the swimmer still has vast advantages over one that cannot swim, and may save himself in many cases, when the other may continue floating, and perish by famine or otherwise. The antient Romans, when they meant to describe a person the least improved, or totally neglected in education, used to say of him, *nec legere, nec natare*—he can neither read nor swim. Only one circumstance more occurs, that needs remarking: it has sometimes happened that swimmers, on going ashore, have found themselves entangled in mud or among weeds, from which they could not extricate themselves, and have perished. The new Preservative will enable a swimmer to take his own time in searching for a proper landing place; and where he suspects the ground, he can swim upon his back along the surface of the water, even until he finds the cork under him touch or rub along the ground.

The Author is sufficiently aware, that nothing new can be proposed, which will not have prejudices and strange objections for some time to combat. The simplicity of this Preservative will incline some to

General
Objections.

consider it as a trifling matter, and of no consequence; when at the same time it is in that very simplicity, and its usefulness, that the greatest merit lies. Every man of knowledge admits it as an axiom, that the greatest difficulty is to reduce things to simplicity; and indeed that no art or contrivance can be good which is not so reduced. It has been said of a certain great Statesman, that his system of politics was simple, and composed of few maxims. Some persons rashly throw out, that one had better be drowned at once than keep himself floating, and run the risk of dying by inches; the Author has been told so even by a Sea Captain. But this loose reflection proceeds from inconsiderate indifference. Others well advert to the many chances this Preservative will give them of saving their lives, especially as very few are lost at a great distance from land, and out of the way of other ships, compared to the innumerable misfortunes that happen near shore. The Captain before-mentioned even seemed to make light of the perishing of his people, when they happened to fall overboard; while others appeared to be at the utmost pains, and extremely anxious to save them. Then, because there are some persons, who, proceeding without the knowledge of principles, and even without experience or experiments, plague themselves and others with

with visionary projects, therefore many good people, who have no turn for invention themselves, are extremely apt to receive every attempt that way with ridicule, and even obloquy. However, thank God, there are others of a more generous and rational disposition, who know the importance to mankind of new improvements, and the difficulties and risks that frequently must be encountered, in making them; and who, therefore, so far from rashly condemning, will first duly consider, and then do all in their power to encourage and promote every measure that appears to be really useful. To the latter, the Author, in the present case, refers himself. Principles, experiments, facts, common-sense, reason, and consultations with Sea Officers, all concur to make him confident of the sufficiency and importance of the Design, and therefore he could not prevail upon himself to forbear. And surely no humane person would incline, by inconsiderate reflections, or ill-timed jokes, to prove in the most distant respect a hinderance to the saving innumerable valuable lives, supposing it but possible that the Author may be right, or but partly right. He really believes, that this simple Contrivance will be able to fight its own way; that it needs only to be considered and attended to, and then its use or disuse will be happily or fatally felt.

Providence certainly intended that man should live less by instinct than other animals. All other animals enjoy the fruits of the earth without being at any labour in the cultivation of it: man must both cultivate the ground and manufacture its produce. Other animals purely, or almost entirely by instinct acquire all their art and skill; but the studious and laborious exercise of the Arts and Sciences, and a slow but sure advance in improvements, perhaps to an infinite extent, seems peculiar to man. All other animals swim instinctively, but man cannot, without some prior learning and exercise; neither does his body seem so much adapted for floating as that of other animals. More room here then also has been left for our exercise of Art; and considering how simply, naturally, and properly the new Preservative fits the body, and answers our purposes in the water, perhaps it may be fairly inferred, that Providence intended this improvement for the body of man in water, in like manner as it was certainly meant, that for our better support and accommodation we should cultivate the earth, and make innumerable other improvements upon the simple means which nature supplies us with. It seems impossible to apply any thing to the body for our assistance in water, so commodiously and advantageously, in any other way than

is

is done with this Preservative. In moving the arms, it will appear that there is just room left for it upon the breast; the back-piece also lies conveniently there; and both pieces appear to be in the best manner adapted for our floating, or swimming, or being otherwise employed in the water. The simplicity, propriety, and usefulness of this Preservative, then, being duly considered, it seems rather surprising that it has not been found out and in universal practice many ages ago. But the same remark may be made of many other new improvements.

See Man, from Nature rising flow to Art!
To copy Instincts then was Reason's part.

POPE'S ESSAY ON MAN.

A P P E N D I X.

GLOVES tied to the wrists, with pieces of leather sewed between the fingers, so as to make the hands resemble the webbed feet of a frog, were found upon trial to enable a person to swim stronger and faster; as did likewise a valve, fixed to the outside of each ankle; the valve shutting the water when the leg is drawn up, but opening as the leg is pushed back, powerfully drives the swimmer forward.

Gloves webbed for swimming.
Ankle valves for swimming.

In the event of shipwreck far from land, a tin Cantin or two, filled with any mixture that may serve both as meat and drink, and will not soon spoil, might be fixed to the body; one below the breast-piece of the Preservative, and the other below the back-piece. For the greater chance of preservation from dangerous fish in the sea, or beasts on reaching the shore, a good cutlafs might be fixed to each thigh. And a leather cap, with a projection before, to save one's eyes from the sun, or its glare upon the water, and a flap to button round the neck, will prove serviceable in saving the head, neck, and shoulders from cold, wind, and rain.

Cantin for food.
Weapons
Leather

These gloves, valves, cantins, and caps, will be sold by the same persons who are empowered to sell the Preservatives; and they will also shew the way of fitting them on the body.

Some accounts of
loss of
lives by
water.

The following accounts of some remarkable shipwrecks, and other losses by water, where such a Preservative as is now recommended to the world, if in general use, might have saved thousands of precious lives, have been collected in a hurry, chiefly or almost only, from a compend of English History, which records only some remarkable cases. But to make the account as compleat as the nature of such things admits of, for the years 1781 and 1782, Lloyd's account of shipping, published in London twice a week, was consulted for those two years; and then the frequent repetition of the same kind of misfortunes, varied only by the difference of names and numbers, must render the reading tedious. The Author is far from meaning, that all might have been saved; but it certainly will be evident, that in such cases many might, and that the rest would have had a greater chance for their lives.

Affecting,
but ne-
cessary.

The taking down this sad string of misfortunes has affected the mind of the Author; and he is sorry to think that it must likewise awake the sensibility of every person who reads it. On this account he was almost

almost tempted to reduce the number ; but knowing how negligent and averſe the generality of mankind are to the adoption of any meaſure that is not in the practice of their neighbours, nor a fancy of their own, excepting where neceſſity or ſad experience touches them, he judged that the ſafety of the preſent and future generations abſolutely required more inſtead of fewer examples, and, God knows ! thouſands more may eaſily be collected.

When perſons read or hear theſe, or other ſuch miſfortunes happening upon water, if they would take the trouble to conſider what may be done or contrived to ſave lives in ſuch circumſtances in future, it can ſcarce be doubted but uſeful thoughts and improvements would ariſe. In particular, the readers of the following ſheets may eaſily conſider what effect the new Prefer-
vative would have had, in almoſt every one of the inſtances there given.

The uſe that may, and ſhould be made of reading or hearing of ſuch miſfortunes.

SOME ACCOUNTS OF LIVES LOST BY WATER.

King John of England loſt moſt of his army, with all his baggage, treaſures, and regalia, in croſſing the Waſhes between Lynn and Norfolk.

Anno 359

The

Anno 424 The King of Persia, joined with the Saracens, collected all their forces to make a capital push against the Romans, and were besieging Theodosiopolis in Mesopotamia, when a false alarm arising, that the Romans were upon them, they fell into such a panic and confusion, that hurrying out of the way, great bodies threw themselves into the river Euphrates, and there it was reckoned about 100,000 of them perished.

An. 1100 The sea overflowed above 1000 acres of Earl Goodwin's estate in Kent, and formed what have ever since been called the Goodwin Sands.

An. 1120 Prince William, the heir apparent of Henry the First, with 300 of the young nobility, and all the ship's crew, perished on their return from Normandy, by happening to touch upon a shoal of rocks in fine weather, and so near shore, that their cries were distinctly heard; only a butcher happened to be saved by clinging to the main-mast.

An. 1297 In a battle between Wallace, of Scotland, and the Earl of Warrenne, of England, many of the English were driven into the river Forth, where they perished.

An. 1340 Edward the Third had a great sea fight with the French, in which the English boarding the French ships, the French in hundreds leaped into the sea, and were drowned. The French lost in this engagement two Admirals and 30,000 men.

In a battle between the English and Anno
Scotch, at Holmedon, many of the Scotch ¹⁴⁰¹
perished in the river Tweed.

In a sea fight seven of the largest French An. 1416
ships were sunk, and others driven upon
the coast, where they perished.

The sea broke in at Dorte, in Holland, An. 1446
and drowned about 100,000 people.

Fifteen or sixteen ships loaded with wealth An. 1502
were lost on the coast of Hispaniola, and all
on board perished, among whom were the
Governor, and other persons of distinction.

In a sea engagement a large English ship, An. 1512
the Regent, commanded by Sir Thomas
Knevit, grappled with the Cordeliere, one
of the strongest French ships, the Captain
of which finding himself overpowered, set
fire to the magazine, and blew up both ves-
sels, so that almost every person on board
of both perished, to the amount of 1600
chosen men,

Sir John Clere, Vice Admiral of Eng- An. 1557
land, made a descent upon the island of Po-
mona, one of the Orkneys, but was beaten
by the Scots, and the boat in which he fled
from the shore overset, so that himself, and
all that were with him, were drowned.

An inundation in Holland swallowed up An. 1568
seventy-two villages. In Friezland alone,
20,000 people were lost, whose bodies, with
their cattle, household stuff, &c. floating
upon the drowned country, formed a dread-
ful

ful fight to such as were but uncertain of their safety when they had got upon trees or high grounds, and there were in danger of being famished, until they were brought off in boats by the care of the magistrates.

Anno
1578

The Turkish army, in passing the river Canac, had upwards of 8000 drowned.

An. 1583

Sir Humphry Gilbert, brother of Sir Walter Raleigh, lost one of his ships, the *Delight*, in returning from America, and only twelve of her men were saved: and some time thereafter, in the presence of another ship, the *Golden Grove*, the *Squirrel*, which carried Sir Humphry, foundered, and he, with all the crew, perished.

An. 1588

In the engagements between the English and the Spanish Invincible Armada, thirteen of the best of the Spanish ships were either sunk or driven on shore. Seventeen of their ships, having 5,000 men on board, were cast away upon the western isles and coast of Ireland, where many thousands perished. Some were wrecked on the rocks of Norway, and many perished by fire and other accidents.

Same year the Christians beat the Turks, near the river Schago, and the latter had 300 men drowned in the river.

An. 1591

Sir Richard Grenville was surrounded by the Spanish fleet, but he defended his ship so desperately, that, though taken at last, he killed them about 2000 men; two of their

their largest galleons, full of men, sunk by his side, and two others were turned adrift unserviceable.

In a battle between the Christians and ^{Anno} Turks, near the river Kulp, of 18,000 men ¹⁵⁹³ which the Turks lost, a great part were lost in the river.

The Turks lost the greatest part of 12,000 ^{An. 1594} men by the sword and drowning, in two engagements with the Christians on the banks of the Danube.

In an engagement between the Turks ^{An. 1596} and Christians, the greatest part of 6000 Turks were drowned in the river Kulp.

At different times no less than thirty-one ^{An. 1597} Spanish ships of war were lost almost in sight of their own shore.

In an engagement on the English coast, ^{An. 1602} a Spanish galley, the Lucera, was sunk, and all on board perished; another, the Badilla, split in pieces; and a third was lost in endeavouring to reach Calais.

About 120 people were drowned at New- ^{An. 1633} castle, by an inundation.

In three fights between the English and ^{An. 1652} Dutch, the last had three men of war sunk, and two burnt and blown up.

In different engagements they had other ^{An. 1653} ten sunk, and three blown up. In another, the 31st of July that year, they had twenty-six ships of war either burnt or sunk, and the English had two burnt. The English ship,

ship, Triumph, was so effectually fired, that most of her crew threw themselves into the sea, though the few that remained were so lucky as to put it out ; and though the English Admiral, because this fight was so near the enemy's coast, thought proper to give orders that they should neither give nor take quarters, yet 1200 Dutchmen were taken up out of the sea by the English.

Anno
1655.

Admiral Stayner, after an obstinate engagement, sunk two, run two more a-ground, and took other two of the Spanish fleet from the Indies. In one of these, among the others, the Marquis of Badajoz, Viceroy of Peru, with the Marchioness, his wife, and their daughter, perished miserably ; their two sons happened to be saved.

An. 1663

In several engagements on the coast of Flanders between Tromp, and the English, Monk, Ding, Penn, and Lawson, both Ding and Tromp were killed, and many of the Dutch ships were sunk.

An. 1665

Sir Thomas Allen, on the coast near Cadiz, met the Dutch fleet coming from Smyrna, and he sunk or took four of them, and drove the rest into the bay of Cadiz.

Same year the Duke of York beat the Dutch Admiral, Opdem. The Dutch Admiral's ship and himself were blown up, and only five of 500 men on board were saved. On board were also great numbers
of

of volunteers of the best families in Holland. Fourteen of the Dutch ships were sunk, and eight set on fire and consumed, one of which, the Orange, of 75 guns, with 400 men. Many of the English boats were busied in saving such of their enemies as they saw floating on the water, while others were fighting with the utmost fury. The English lost three or four ships, and 1500 men; the Dutch 6000.

Same year another inundation in Holland overflowed many villages, and destroyed much people and cattle; all the country round Naerden, Muyden, and Wesop, as far as Lomen, in Goyland and Balecorn, in the Province of Utrecht, was under water; the gates and ramparts of Naerden were ruined. In Amsterdam, the Newemdyke, with a street upon it, and the neighbouring market-place, was quite overflowed. The country in many places, and particularly in Waterland, was entirely swallowed up.

There have been innumerable other destructive inundations in Holland, and other countries and places situate near the sea and rivers.

De Ruyter fought the Duke of Albe-
marle, and Prince Rupert, five different
times: ten English men of war were sunk,
two burnt and six taken; one Dutch was
blown up, another burnt, and other thirty
were sunk or taken.

An. 1666

Same

Same year Admiral Holmes burnt two ships of war, and sunk, burnt, or otherwise destroyed about 160 merchantmen, all richly laden, on the coast of Holland.

Anno
1672

In a battle off Solebay, between the Dutch and the English, and French, the English Admiral's ship, with himself (the Earl of Sandwich), was blown up, and all on board, excepting a few, perished. The English had four other ships of war sunk or disabled, and the Dutch had one man of war sunk, another burnt, a third taken, and five or six fire-ships sunk. The French lost two men of war.

An. 1673

In an engagement between the English and Dutch, Sir Edward Spragge, one of the English Admirals, finding his ship, the St. George, disabled, was going in his pinnace to hoist his flag on board another ship, yet before the boat got ten times her own length, she was pierced by a cannon ball, and the crew immediately rowed back; but before they could reach the ropes thrown out from the St. George, the boat sunk, and Sir Edward was drowned; his hands taking such strong hold on the side of the boat, that when it came to float he was found with his head and shoulders above water.

An. 1682

The Duke of York going to Scotland in the Gloucester frigate, the ship struck on a sand-bank, and was lost, with near 300 people; among whom were many persons
of

of distinction, only the Duke and a few that he took with him in the boat were saved: Sir John Barry standing with his sword drawn in the stern of the boat to hinder others from crowding in.

The Dutch had three ships of the line Anno
sunk in a battle with the French. 1689

The Coronation, a second-rate, foundered- An. 1691
ed off Ramhead, and Captain Shelton, with all his crew, perished, excepting an inconsiderable number.

About 1500 persons perished at Fort An. 1692
Royal, in Jamaica, by an overflowing of the sea.

In a sea-fight between the French, and the An. 1693
English and Dutch, many ships were sunk and destroyed by the French.

Same year; the English fleet, under Sir Francis Wheeler, was overtaken with a storm in the Bay of Gibraltar, under a lee-shore, which he could not weather, and where no anchor could hold. A great number of ships were driven on shore, and many perished. The Admiral's ship foundered, and Sir Francis, with all his crew, to the number of 550, perished; only two Moors escaped. Two other ships of the line, three ketches, and six merchant ships, were lost.

Same year, in King William's battle with the French at Landen, many in the retreat were drowned in the river.

An. 1703 Admiral Beaumont, with thirteen ships of war, and more than 1500 men, were lost on the Goodwin Sands and other parts of the coast. Part of the crews of some of the ships were saved.

An. 1704 The Content, a French man of war of 64 guns, was set on fire by the English on the coast of Spain, under the cannon of a little castle, and destroyed, with most of her men.

Same year, at the battle of Blenheim, the greatest part of 30 squadrons, French and Bavarians, perished in the River Danube.

An. 1707 Sir Cloudefley Shovel, in his own ship, the Association, struck upon the Rocks of Scilly, and every soul on board, amounting to near 900 persons, perished: among whom, besides Sir Cloudefley, were several other persons of distinction. The Eagle of 70 guns, and Romney of 50 guns, shared the same fate. The Firebrand was dashed in pieces, but the Captain and 24 of her crew were saved.

Same year, the Hampton Court, Captain Clements, in an engagement, sunk the Salisbury, then a French ship of the line, by his side; and in another engagement the Devonshire man of war took fire and blew up, and only two out of 900 men escaped.

An. 1708 Commodore Wager engaged and blew up the Spanish Admiral's ship, in the West Indies,

Indies, in the beginning of the night, and when it was dark.

The Solebay man of war, with eight An. 1709 merchant ships, bound to Lynn in Norfolk, were lost on Boston Knock, and only two boats full of men saved, out of all the ships.

Sir Hovenden Walker, with a fleet in the An. 1711 Bay of St. Lawrence, unexpectedly, under night, found themselves on the North shore, among the rocks and islands. The men of war escaped the danger with the greatest difficulty; but eight transport ships were cast away, and 884 Officers, soldiers, and seamen perished; 499 were saved. Only a small victualler saved all her crew. And after the safe arrival of Sir Hovenden Walker at Spithead, his ship, the Edgar of 70 guns, blew up there; by which several hundred seamen were lost. Besides her crew, there were between 40 and 50 persons from Portsmouth and Gosport on board. The commissioned Officers had the good fortune to be on shore.

The Windfor English ship of war en- An. 1712 gaged the St. Esprits, of 36 guns, 175 men; when the latter blew up, and only the Captain, with about 30 men, were saved by the English boats.

Same year, in a hurricane, in Jamaica, several persons were drowned on the shore; the sea forcing the boats and canoes a great

way upon land, at Spanish Town, and washing away the houses.

An. 1722 A hurricane happened in Jamaica, in broad day, when the sea drove in upon the land and drowned great numbers. Many ships were overfet and sunk; some driven on shore, and others driven out to sea. The part of the coast and harbours where it happened, discovered next day a dismal prospect, being covered with wrecks and dead bodies. The rain at the same time was excessive, and swelled the rivers and rivulets to such a degree, that great damage; and many lives were lost also by the land floods.

An. 1742 Whilst Admiral Matthews continued at Villa Franca, a French man of war passing by that port in sight of the fleet, neglected to pay a proper compliment to the British Flag. The Admiral fired a gun as a signal for her to bring to; but the Frenchman continued obstinate; upon which Mr. Matthews ordered one of his ships to pursue and sink him, which was immediately executed by the first broadside.

An. 1744 Sir John Balchen, in the Victory, reckoned the finest first rate then in the world, foundered in the Bay of Biscay, upon the rock called the Casket, near the Island of Alderney; and of 1200 chosen men; not one was saved. Among them were a considerable number of volunteers, many of them of distinguished families.

Captain

Captain Hamilton, in the Dartmouth An. 1747
frigate of 40 guns, in an engagement with
the Spanish Glorioso of 80 guns, took fire
and blew up, and he, with all his crew,
perished, except a midshipman and ten or
eleven seamen, who were taken up by a
Privateer.

The Doddington, outward-bound East An. 1755
Indiaman, struck on a rock, about three
leagues from the Main of Africa, 33 deg.
44 min. They had doubled the Cape,
and made 11 deg. mer. dis. from Cape
Agulhas. Judging they were on the Ma-
dagascar shore, and the passage open, they
bore away to the Northward. The time
they were lost, they saw the breakers, and
in less than a quarter of an hour the ship
went to pieces. Out of 270 people, only
23 made their way to this rock, (to which
they gave the name of Bird Island) where
they remained six months, and built a
sloop out of the wreck. In her the chief
mate and sixteen people (being all that were
then alive) went to Madagascar; where
the Caernarvon, Captain Norton Hutchin-
son, took them on board, and carried them
to Madras. When seven weeks upon the
rock, three of them made an attempt in
the little boat to make some discovery on
the neighbouring coast; but the boat at
landing there was twice overfet, and there-
by one of them drowned. The other two

found the coast more inhospitable than the rock, and with great difficulty got back.

An. 1756 Captain Fortunatus Wright, of the St. George privateer of 12 guns and 20 men, beat a large xebec of 16 cannon, and nearly three times his number of men, killing the Captain, the Lieutenant, and above three score men. This ship afterwards foundered, and he and all his brave crew perished.

An. 1757 It was foreseen in France that the melting of the snow would occasion mischief, and every possible precaution was thought to have been taken, to guard against it. Yet some of the most fertile provinces were grievously desolated. The rivers every where swelled with incredible rapidity. Men, women, and children, were carried away; roads, houses, churches, bridges, mills, cattle without number, and the fields were ruined.

Same year, at the siege of Prague, many of the Austrians were driven into the river, and drowned.

Same year, the Tilbury was wrecked upon the rocks of Louisburg, and half her crew drowned.

An. 1758 Admiral Broderick's ship, the Prince George of 80 guns, within sight of twenty-three other ships, about the chops of the Channel, took fire between one and two P. M. and sunk between six and seven o'clock.

o'clock. At two they made signals of distress, and the Glasgow and Alderney ships of war sent boats to their assistance, as did likewise other ships; but all of them were afraid to approach near enough, for fear of her blowing up (not knowing that they had been able to wet their powder); they were also afraid of the firing of her guns, which last did happen, and swept the crew off the decks in great numbers, the guns being all loaded and shotted. When every effort to extinguish the fire proved fruitless, the barge was hoisted out for the preservation of the Admiral and Officers; but the seamen rushed into it in such crouds, that in a few moments it overset. The Admiral foreseeing that event, had stript off his cloaths, and after swimming a full hour, was taken up by the boat of a merchant ship. The long boat afterwards attempted to get off with near 100 people, but she also overset. Two young Gentlemen lashed two tables together for a raft, but being badly lashed, one of the tables was lost; yet on the other Mr. Parry, an Officer, was found, and taken up by a boat, very near drowned. Captain Payton, second in command, was taken off the stern ladder by a boat. About 260 were preserved by the boats from ships in company; but 485 perished. She had on board thirty passengers for Gibraltar. At six

o'clock hundreds were seen hanging by ropes down the sides, while the masts and sails were all in a blaze ; about 50 were counted hanging over in the stern ladder ; others were in the sea, clinging to oars and pieces of wood. The cries and shrieks from the ship were terrible, which, with the lamentations, mourning, groaning, raving, despair, and even madness, on board, exceeded all expression or conception. About half an hour after six the flames broke out at her sides, and in less than five minutes more every bit of her was in flames. Many were observed leaping over board, to shun the fire, and then perishing in the water. Many that could swim were soon tired, and perished.

Same year, the Litchfield man of war of 50 guns, Captain Barton, together with a transport and a bomb tender, were wrecked on the Coast of Barbary. Of the crews of the transport and bomb tender 118 were saved—Of the Litchfield's crew 220 were saved, and 130 men and Officers drowned. The following are some of the particulars of the Litchfield's misfortune.—She ran aground about two cables length from land. Her masts soon went overboard, and carried several of the men along with them. One of the boats was launched, and eight of the best seamen jumped in ; many more would have followed, but a rolling sea over-

overturned her, and the eight men perished. Ninety-eight swam on shore. Next day, at low water, 15 made a raft, and got upon it; but it was soon overturned, and only three or four of them were saved. Many more endeavoured to swim ashore; but some of them perished. One of the swimmers brought a small rope along with him, which being made fast to a greater on board, that greater rope was hauled on shore, and made tight between the ship and rocks. This proved the means of saving numbers, who warped along the rope; but some in so doing were washed off, and perished. When the flood returned, the rope was of no farther use. About 30 hours after the ship stranded, she broke into three parts. Part of the poop came ashore; thirty men had got upon it, but only eight reached land. Another part of the poop and a small part of the deck still remained above water, on which the Captain and 130 men continued; but scarce a wave passed without washing off some, few or none of whom came alive on shore. The tide again fell, when the Captain, who could not swim, assisted by an able seaman, warped along the rope: when spent with fatigue, he had lost the great rope, but luckily was so near as to get hold of a small one, thrown to his assistance, and so was dragged on shore. Numbers more now got along the rope,

though

though many fell off and perished ; especially in the night time, even within a yard or two of their companions on shore. At last the remainder of the wreck went all to pieces, with between 30 and 40 men upon it, all of whom perished, but one, who was cast on shore, after being two hours tossed about upon a piece of the quarter gallery.

Same year, the British army, under General Blyth, made a descent on the coast of France, and destroyed the port of Cherbourg ; but in the retreat from the beach of St. Cas they suffered prodigiously. General Drury, and great numbers of Officers and soldiers, to shun immediate death from gun and bayonet, rushed into the sea, and perished. Many swam towards the boats and vessels ; but the French being exasperated at the continuation of the fire from the English frigates, made a dreadful carnage. They stopt the moment the firing from the frigates ceased : however, great numbers were butchered on the beach, or drowned in the water. About 1000 chosen men and Officers were thus lost or taken prisoners ; the far greatest part killed and drowned.

Same year, at the landing of the British troops to the attack of Louisburg, 70 boats were lost, and numbers of the seamen and soldiers drowned.

Same

Same year, the Dublin Trader, Captain White, from Parkgate for Dublin, was lost. She had on board above 60 passengers; among whom were the Earl of Drogheda and his second son, and several other persons of distinction.

Same year, the Prince of Ysenburg was defeated by the Duc de Broglie, when many of the Hessians plunged into the river, and perished.

In the engagement between Sir Edward An. 1759 Hawke and Monsieur de Conflans, on the coast of France, the Thessee and the Superb, two French men of war, of 74 and 70 guns, foundered; and the English Resolution and Essex, of 74 and 64 guns, run on a sand-bank, and, with numbers of their men, were lost.

In February same year, thirteen persons were drowned by the overset of a wherry, on its passage from Southampton to Heath: and in March, a passage boat from Pool to Wareham was forced upon the beach, and thirteen out of nineteen persons perished.

Same year, the Friendship, Thompson, from Jamaica, by some accident blew up at the Hope Point; there were on board between thirty and forty persons, amongst whom eighteen young gentlemen, coming here for their education, and the mate's wife and two children; only four persons were saved.

The

An. 1760 The long boat of the Stag-man of war was overfet near Kinghorn, in Scotland, and the purser, furgeon, a midshipman, nine feamen, and a woman, were drowned.

In April fame year, two armed veffels belonging to Genoa, were wrecked within fight of Bastia, and only forty-one of the men were faved; Nicholas Doria, a patrician, their Commander, three noble Genoefe, and a great number of foldiers, befides the mariners, were loft.

In March, the fhip Francis, Captain Onflow, from Liverpool to Africa, was wrecked on Fortaventura, one of the Canary iflands, and twenty-three of her people were drowned.

In May, the Royal Exchange, Wifeham, and a Dutch fhip of three masts, ran on board each other at Plymouth: after being alongfide for fome time, the Dutchmen called out they were finking, and foon thereafter totally funk.

Same year, the Ramillies, a magnificent fhip of the fecond rate, was wrecked upon the rocks in Quiberon bay, and all her officers and men, amounting to 700, perished, excepting one midshipman, and twenty-five mariners, who got upon the rocks.

Same year, the Lyme of 20 guns, foundered in the Cattegat, in Norway, and fifty of the men perished.

Same

Same year, on the coast of Coromandel, the British ships, called the Duke of Aquitaine, and the Sunderland, foundered, and all their crews perished.

Same year, a tender belonging to the Dublin, Commodore Douglas, was lost at St. John's, and upwards of 100 chosen men perished, together with the Commodore's brother.

At the attack upon Belleisle, twenty flat-bottomed boats were staved or overfet. An. 1761

Same year, at the siege of Pondicherry, two British ships of the line were wrecked, and their crews (with the exception only of two or three men), perished. Two others were also wrecked, but their crews saved.

Same year, the ship Tuscany, of Bristol, Captain Power, in an engagement with the Duke de Biron privateer, of Dunkirk, blew up, and sunk in a few minutes; and out of 210 persons, including passengers, only the Captain, and four or five, were saved.

Same year, the Griffin man of war, of 20 guns, was lost off Bermudas, and fifty of the men were drowned.

Same year, the Bedford man of war ran on shore on Hazeborough Sand, near Yarmouth, and Captain Gordon, with above half his men, perished.

The Zenobee, a French frigate, commanded by Monsieur de Sage, was wrecked upon the Peninsula of Portland: about An. 1762
seventy

seventy of the people reached the shore, where they were barbarously stripped by the inhabitants. His Majesty (Geo. III.) being informed of it, ordered them all to be supplied with necessaries and entertainment at his expence; and to be informed that they were not to be considered as prisoners of war. It was not long before this act of generosity was retaliated in France, for an English trading vessel being drove a-shore on the coast of Havre de Grace, the Commandant there received the crew with the utmost hospitality, provided good quarters for them, and allowed each man 30 sols per diem, until they were sent to their own country.

Same year, the *Minerve*, a French frigate, was wrecked in the harbour of Villa Franca. A considerable number of people perished, notwithstanding great assistance was given by other ships. She, with four other French ships of war, had been chasing the *Sheerness*, an English frigate, Captain Clarke, who taking refuge in this neutral harbour, he was immediately followed by the enemy; and the Captain of the *Minerve*, actuated by an idle spirit of vanity and insolence, resolved to lie between Clarke and the shore, and so run his ship upon the rocks. Being himself but a bad seaman, and his crew also unskilful upon such emergencies, the ship was dashed in pieces.

Clarke,

Clarke, regardless that they were enemies, and that this calamity was brought upon them through their excess of enmity to him, gave freedom to his humanity and honour, sent his boats to their assistance, and actually saved the lives of the greatest part of them; for which he was afterwards thanked by the French Commodore in person.

Same year, a cartel ship from New-York was cast away, and out of 120 souls on board, six only were saved. There were on board 14 Officers, 10 Ladies, and 14 young Gentlemen of fashion.

Same year, at the siege of the Havannah, many of the Spaniards, in retreating, were drowned.

Same year, at the siege of Manilla, 300 of the Spaniards were drowned in attempting to pass the river; and after the surrender of the place, Commodore Tiddiam, a brave and experienced Officer, entering the river in his barge, was drowned, with five of his people.

In an expedition against the Spaniards in An. 1763 the South Seas, the Lord Clive, a privateer of force equal to a ship of 50 guns, Captain Macnamara, took fire during their attack upon Nova Colonia, when many of the crew perished in the water, and some in the flames. Some in despair kept up the fire against the enemy, determined thus to employ

employ themselves till they should receive their fate, and were blown up ; while others, wounded and in torture, dispatched themselves ; and others, as is usual in such cases, hurried to the liquors on board to drink themselves drunk. Of 340 men, only 78 were saved by swimming. The other ships did not approach for fear of sharing the same fate. The fire was discovered about three P. M. and the ship blew up about eight. Such of the crew as reached the shore, were humanely received, treated and clothed by the Spaniards, whose resentment seemed to cease on account of the calamity.

Same year, the Brigantine Polly, in her passage from the Havannah to Jamaica, took fire in the hold, occasioned by drawing some rum ; and thereby two Officers, one serjeant, two corporals, seventy-one soldiers, four sailors, four women, and one child, perished. The Admiral Pocock, another transport, from the Havannah, of 600 tons, was lost near Dartmouth, and all the crew and passengers perished ; amongst whom were the crews of two other transports that foundered at sea, and several land Officers.

Same year, two Guinea ships were destroyed, (one at Dublin and the other at Liverpoole) by the accidental firing of their powder.

powder. The crews of both, all but one man, perished.

Same year, the Hanover Packet, from Lisbon, was lost in the North Channel, off Padstow, and the Captain, crew, and all the passengers, amounting to 60 persons, perished, except two men and one boy.

Same year, the first ship bound with new Settlers to Florida, was wrecked about two in the morning, on a ledge of rocks near Madeira; by which about 200 passengers and sailors were drowned.

At the storming of Auda Nulla, in Hindostan, the English made great slaughter of the Indians; and as many perished by drowning as by fire and sword. An. 1764

Same year, by inundations in many different parts of Europe, great numbers of persons lost their lives.

November 4th, a storm arose of a sudden, An. 1765
on the east coast of Great Britain, and overfet a great number of fishing boats; many of the fishermen perished. The morning was fine when the boats went out: numbers perished in the fight, and within the hearing of their families and friends, whose cries and lamentations on the occasion are not to be described. Spital alone, near Berwick, lost 24 fishermen, who left as many widows and 50 children. The loss was proportionable in every place along
E the

the north coast. Many ships were likewise wrecked.

Same year, a French squadron of ten ships of war bombarded the towns and forts of Salee and Larache, on the coast of Morocco, and sent sixteen boats up the river to burn the shipping. The Moors suffered the boats to advance some miles, and then suddenly fired upon them from both sides of the river, while, at the same time, 2000 of them threw themselves into the water with their poniards in their mouths, and beset the boats on all sides. The boats were soon obliged to strike and demand quarter. The French had about 500 men killed, and lost all their boats. Many of the swimmers boarded the boats, and killed there about 150 of the French.

These 2000 swimmers would have been much more formidable if they had had the new Preservatives upon them, pistols in their caps, and cutlasses by their sides.

An. 1766 As Mr. Bambridge, of Bolton, near Lancaster, was attempting to cross the Seven-mile Sands in a thick fog, he lost his way, and wandered about till the flood-tide came in and surrounded him; he killed his horse galloping backwards and forwards to escape the tide, and was fortunately taken up (after floating upon his dead horse about
five

five hours) by the crew of the sloop Providence, from Milnthorp.

Same year, the town of Gibraltar suffered much from an inundation; about sixty lives were lost, parts of the houses, furniture, men, women, children, and animals of all sorts, were floating on the water.

Same year, by a hurricane in the Archipelago, many ships of different nations perished; in particular, a rich ship from Alexandria to Salonica was lost on the coast of Zagera, and of 200 men and passengers, only five were saved.

Same year, the Snow Nancy, from Bristol, was lost on Hereford Bar, and the following 23 persons were drowned, viz. Captain Kerr, Mr. Oliver the mate, Captain Wilson, his wife and child, Rev. Messrs. Giles and Wilson, Robert Smith, a Brother of Dr. Smith, of Philadelphia, Captain John Corser of that place, Captain Jones and four seamen taken up at sea out of a Rhode Island vessel, Mr. Mott of Connecticut, a Captain and two mates passengers from Bristol, and six seamen belonging to the Snow.

Same year, an inundation of the sea overflowed great part of the Island of Martinico; the greatest part of the town of St. Pierre was swallowed up. Eighty ships in the harbours were destroyed, and 1600 persons lost their lives.

Same year, the common Wherry to Southampton sunk in her passage, and of 11 persons on board, 10 were drowned; four of the dead bodies were taken up.

Same year, Captain Baker of the Ravensworth, in his passage from London to Newcastle, took up seventeen men from the wreck of a ship that had just overset: one boy had perished. The merchants of Newcastle opened a subscription for rewarding the Ravensworth's men, and relieving the poor sufferers.

Same year, an inundation of the river Tarno in France, laid 1200 houses in ruins.

An. 1767 A Dutch East-India ship was wrecked within three leagues of the Texel, and all on board, excepting five or six seamen, perished.

Same year, the Brig Sally, Captain Tarbry, from Philadelphia to Hispaniola, upset, and the master, mate, and three marines were drowned; six other mariners saved themselves with great difficulty upon the wreck.

An. 1768 The Defiance East-India ship, by the carelessness of the gunner's steward in drawing some arrack, on her passage from Bombay to Bassora, took fire, and of above 300 men and Officers on board, only 35 were saved.

Same year, the largest ship belonging to an English squadron, took fire and blew up,

up, off Bender Abaffy, and every soul on board perished, 450 men, besides passengers.

Same year, the ship Captain Kennedy, from Port Royal in Jamaica for Whitehaven, became leaky and sunk at sea, about ten leagues west of Jamaica: the crew, thirteen in number, got into the yaul, with only a keg of buiscuit, ten lits of cheese, and two bottles of wine. On the seventh day, in the boat, they made Swan's Island, in the Bay of Honduras, where they found only a little brakish water and some wilks: from thence they sailed for Honduras. The fifteenth day of their being reduced to the boat they got to the Island of Ambergris, where they slept four nights; every evening picking up wilks and conks for next day's provision; embarking every morning, and rowing along shore. The fifth night they met a vessel, which took the seven survivors up; for six had perished with hunger and fatigue. As none of them were drowned, the Author would not have troubled his readers with this shipwreck, but on account of what follows. In their greatest distress for food, they were sometimes relieved by wild fowl hovering over their heads in the evening, and who were so little accustomed to fear men, that they lighted upon their hands, when held up to receive them. Of

these they eat the flesh and drank the blood. The wilks afforded them such relief, that Captain Kennedy says, he shall ever revere the name. Upon a hint he remembered from a Treatise of Dr. Lind, he twice every day soaked his cloaths in salt water, and put them on without wringing; to which practice he was able at last to persuade the other survivors; and to this he attributes the safety of their lives: for their bodies absorbed so much water, that they daily made as much urine as if they had drank moderately. The saline particles remained on their cloathing, incruited by the heat of their bodies and the sun; but these saline particles were again washed off by wetting. By this absorption of the water through the pores of the skin, their violent drowth went off, their parched tongues cured, in a few minutes after bathing and washing their cloaths, and they found themselves refreshed, as if they had actually received some common nourishment. Four who died delirious, had drank large quantities of salt water; but those who avoided that drink, had no such symptoms.

An. 1769 In several engagements between the Russians and the Turks, the latter being beat, some thousands of them perished in the River Neister—A few hundreds escaped by swimming:

swimming ; but the river for several miles was covered with dead bodies.

Same year, five ships were driven on shore near Calais ; on the mast of one of them part of the crew remained 36 hours, before they were relieved.

Same year, the Duncannon Packet, Captain Edwards, from the West Indies and Carolina to England, on his passage took up John Foster Williams, master of the John, a brig from Boston for Surinam, who for many days had been floating on the wreck of his vessel ; and all the rest of the crew had perished.

Same year, the ship Mercury, from Stockholm for Cadiz, ran on shore on the Goodwin Sands, where she filled with water, and her bottom beat out. The people of Broad Stairs seeing the distress of the crew, manned and sent out two boats to their assistance ; who with great difficulty brought on shore the Captain and seven others. Three men perished.

Same year, many lives were lost by an inundation in Holland.

Same year, in the Island of Dominica, many were drowned by land floods. Four persons were found on the roof a house, floating in the sea, twelve leagues from land.

Same year, the Aurora ship of war, Captain Lee, from London for India, with

Mr. Vanfittart, Mr. Scrafton, and Colonel Ford, supervisors sent out to controul and regulate the East-India Company's concerns in India, sailed from England; but has never since been heard of. Mr. Vanfittart's son was also on board. Three years after the Company sent out other supervisors.

An. 1770

The Berwick, Captain Moore, from St. Vincents to London, foundering suddenly at sea, the whole crew, 13 men and one woman passenger, crowded into a small open boat, in which they were four days and nights, without provision or shelter, before they met with and were taken up by the Mars, Captain Holland, for Liverpoole.

Same year, the Neptune, Broomhall, deeply laden with fish from the Banks of Newfoundland, bound for England, foundered at sea. She had 33 servants on board, seven of whom were drowned; the others, with the Captain and ship's company, were taken up by a French Banker, who used them with great humanity for 19 days; when they met with a large cat from Whitby, who took them on board, and landed them at Burlington.

Same year, as the ship Mars, for Jamaica, was going out of Liverpoole, attended by the pilot boat, with several gentlemen, clerks, women, and pilots, to
the

the amount of 22 persons, the pilot boat was lost, and all on board perished, excepting two pilots and a clerk. The owner of the ship was one of those that perished.

Same year, on the coast of Ireland, the Endeavour, Mackmerry, and the Harlequin, Johnson, both of Whitehaven; and the Primrose, of Workington, were lost, and all on board drowned. A brig, Messenger, of Maryport, was lost, and the master and one hand were drowned. A brig, Simpson; the Good Intent, Thompson; a sloop, Jackson; and the Pretty Jenny, Parkins, were supposed to have foundered, no accounts having been got of them.

Same year, there were great floods in different parts of England. The cities and towns near the Severn suffered great distress; those on the Trent still more. The great Bedford Level was under water. At Coventry, in the middle of the night, the water came rolling into the streets and houses, and soon grew to an alarming height. Many lives were lost; upwards of 70 persons were taken up drowned in that city only: those who attempted to wade through it, were mostly lost. Like accounts came from several other places.

Same year, the ship Grocer, Captain John Beatson, from Leith to London, struck upon the Spurn Rocks, near the mouth of
the

the Humber, and went to pieces that night. The Captain, his son, and nephew, with four others, took to the boat, and were saved; as were also the mate and six others, who were drove on shore with the wreck: but 19 men and women passengers and seamen perished.

Same year, the Belfast Trader, in turning the Point of Girvin, struck upon the rocks near that place, beat to pieces, and every soul on board perished; among them were several passengers.

There were many other losses by sea this year; in particular, 16 sail were driven upon the sands at Yarmouth, and every soul on board perished.

An. 1771 The Good Intent, Naylor, from Guernsey for Newcastle, ran aground near Robin Hood's Bay, and was lost. The master and one man were drowned; three others got on shore upon the mast, which broke away by the deck.

Same year, by the rising of the waters of the river Garonne, in France, a large tree was borne down, which broke the cable of an old hulk, and set adrift five or six ships; these again drew along with them about 100 small craft: Most of the small craft, with all the people on board of them, perished; three or four of the ships sunk, and the rest either run aground or shared the same fate.

Same

Same year, the *Betsy*, Captain Watson, from Virginia to Charlestown, was laid upon her beam ends in a hard gale ; six of her hands were lost off the decks ; the Captain, and a Gentleman with his daughter were also lost. They had cut away the masts, to which thirteen of the crew swam when the ship sunk, and after floating upon them for 37 hours, were taken up by a ship for Glasgow.

Same year, the *Samuel*, Capt. Daniel, from Jamaica for Liverpoole, struck upon a sand-bank in Lancaster Bay : six got on shore, and five perished.

Same year, *L'Oriflamme*, a Spanish galleon (with 500 men, and many passengers), was cast away on the coast of Chili, and all on board perished.

Same year, the *Granby* sloop, Capt. Hay, was lost, with two midshipmen, a pilot, and twelve seamen ; supposed upon the Light-house Rocks, off Hallifax.

Same year, great floods in the rivers Tine, Tees, &c. did a deal of damage in the Towns of Newcastle, Bernard-Castle, Yarum, and other places in Northumberland, Cumberland, and Westmoreland ; drove down and sunk many vessels, and drowned many persons, in particular 46 at Yarum ; some families were swept away.

Same year, there were dreadful inundations in many parts of Germany.

Same

Same year, the Verelst East Indiaman was lost upon the coast of the Isle of Mauritius, and 25 of her people drowned; 101 were saved. The French did every thing in their power for them, and treated the survivors with great humanity. They had dreadful strugglings upon rafts, through a tremendous surf, where no boat could live, and many were tumbled off the rafts, and perished: they had great exertions to make, after being several times thrown off the rafts, to get upon them again; in particular, the strong and effectual strugglings of one Lady was remarkable.

Anno
1772

The Margaret, Thrasher, from Newfoundland to Poole, struck upon one of the Scilly Rocks, and was lost. All the crew perished, except two men, who remained three days upon the rock, before they were perceived by a boat and taken off.

Same year, a ship from Newfoundland was wrecked upon Lydd Beach; the Captain and crew saved; but a man and his wife, passengers, not being able to get into the boat, joined their hands, and perished together.

Same year, a great number of ships and lives were lost in a storm, upon the north coast of Ireland. The shore in many parts was covered with wrecks and dead bodies.

Same year, the Libertas, Zittenberg, from Stockholm for Dublin, was wrecked

on the rocks called the Bishop and his Clerks, where four of the crew perished, and nine men, who had got upon the rocks, were taken off several days afterwards and saved.

Same year, in a tiffoon or hurricane, upwards of 150,000 Chinefe perished in the river Canton.

When the exprefs packet, with the mail ^{Anno} from England for France, was off Calais, ¹⁷⁷³ the wind blew fo into the harbour, that the Union packet, with the French mail, could not get out; whereupon the mate, Mr. Pascal, took a boat to meet the exprefs packet, with intent to change mails, but the exprefs failed into the harbour, and the boat overfet in her return, whereby Mr. Pascal and feven men perished, in the fight of a great number of fpectators.

Same year, a fhip from Philadelphia to Newry was driven near the rocks of St. Elvis, on the coaft of Wales, where fhe let go her anchor, to endeavour to ride out the ftorm. Next day, four brave feamen belonging to Solva, generously ventured out to their relief; not being able to fave the fhip, they endeavoured to land the crew; and the firft and fecond trips proved fuccefsful; in the fecond trip was a gentleman juft married, who was diftrefsed to find his wife could not be received into the boat with him, but it was promifed that fhe
 fhould

should be one of the next taken in ; however, the third trip proved fatal, for a dreadful sea overfet the boat, and all on board perished. The distress of the Gentleman for the loss of his wife, and the cries and lamentations of the wives and children of the four brave seamen, with the horror visible in the countenance of their friends and relations, was extremely affecting.

Same year, many persons, on their return from a fair at Thornhill in Dumfriesshire, crouding into a small boat, to get over the River Nith, at that time much flooded, the boat was overloaded and overfet, whereby nine persons out of sixteen were drowned.

Same year, by a storm, on the coast of Normandy, some vessels were lost, and a great number of seamen perished. Several boats and small vessels were lost in the harbour of Havre, and many persons belonging to them drowned.

Same year, the L'Apollon, a French man of war, foundered off the Lands End, and all on board perished.

Same year, a Russian man of war of 64 guns, with all her crew, and several other vessels, perished in the Archipelago.

Same year, great damage was done by inundations, in different parts of France. In Bretagne, the bodies of 53 drowned persons

persons were taken up, and the coast about St. Maloes was covered with wrecks.

Same year, the Charming Jenny, Captain Chilcot, in consequence of false lights being observed, was wrecked on the coast of the Isle of Anglesea, and all the crew perished, excepting the Captain and his wife, who got ashore upon part of the wreck.

The sloop Harriot, Captain Dickinson, An. 1774 and the Garland, Captain Englis, were driven on shore at Madeira, and all the crew perished: also a Portuguese snow and schooner and fifteen people perished, only four men saved: also the Triton, Saunders, from New York, and all her crew, excepting the mate and a boy, perished: also the Hankey, M'Intosh, from London to the Grenades, and all her crew, excepting the Captain and cook.

Same year, above 60 persons crowded into the ferry-boat, to cross the River Sarte, between the towns of Mans and Sable in France. The boat went off with them, but soon after overset. Some saved themselves by swimming; others were taken up by boats, which put off to their assistance: but 45 perished; among which were several women with child.

Same year, the Elizabeth, Capt. Weeks, from Bristol to Cork and Jamaica, proceeding too near the Welch shore, struck on a
rock

rock near St. Dunnels, and was dashed to pieces. The ship's company and passengers amounted to 37 persons, 11 of whom only were saved, and some of these were tossed on shore by the waves. Among the drowned were Captain Sackville Turner, of the 33d regiment, and his Lady : they were found dead in each other's arms, and in that position were interred ; they left two children, the eldest not a year and a half old.

Same year, the storeship Endeavour, in her return from Falkland Island, lost Mr. Allen, the master, and two men, who were washed over-board.

Same year, all the ships of the Russian squadron, in the Archipelago, were driven from their anchors, or perished in the Road. The Vice Admiral and 400 of the crew of the St. Paul of 60 guns, perished ; the rest of her crew, about 100, were saved. Two ships of 50 guns each foundered, and all on board perished. Only one ship rode out the storm, who gave the above account.

Same year, in December, there were many ships wrecked all round the island of Great Britain ; in particular between Newcastle and Berwick, the whole coast exhibited a most terrible scene of shipwrecks ; many dead bodies were driven on shore.

An. 1775 In Saxony, and other parts of Germany, the rivers swelled to an immoderate height, and

and did an incredible deal of damage, but still more in Hungary. Among other dreadful relations, it is said, of the inhabitants of seventeen villages, in the island of Raczcover, surrounded by the Danube, only one person escaped; and the citizens of Pest had nearly shared the same fate, the whole of their suburb being destroyed, several streets reduced to ruins, and not one house escaped without injury.

Same year, at St. John's, and other places in Newfoundland, above 700 boats, with all their crews, were lost; also eleven ships, with most of their crews. For some days after, in drawing the nets ashore, they often found twenty or thirty dead bodies in them.

Same year, there were many ships wrecked on the coast of England. At Liverpoole, small craft were sunk in the river, and fifteen ships driven on shore, or bulged against the rocks, and most of their crews perished. Two packets from Parkgate to Dublin, the Nanpareil, Davis, and the Trevor, Tottee, foundered, and every soul on board perished. Among the passengers were Major Caulfield (brother to the Earl of Charlemont), his Lady (the only child of Lord Eyre) and family, and several other respectable persons. At Holyhead, five ships were wrecked within a few miles of the harbour, and a packet bound to it from Dublin foundered, with thirty-six passengers on board;
 F several

several of them young gentlemen, the hopes of their families, going to England to prosecute their studies. Many other vessels were seen foundering, and some driving about without a creature on board. The accounts from the North of Scotland were equally deplorable—pieces of wrecks and dead bodies being hourly seen floating on the waves.

Same year, many parts of the coast of Holland were covered with wrecks. At the same time there were great inundations in many parts of North and South Holland, and even in the province of Utrecht, which did a deal of damage, and some lives were lost.

Same year, in the forenoon, the Cranbrook, of London, Capt. Suttie, was wrecked on the Goodwin Sands, off Deal; the Captain and four others betook themselves to the pinnace, but were lost; whilst the rest of the crew and passengers for Jamaica, thirty persons in number, got off in the long-boat, which in the afternoon was driven ashore near Calais. As soon as the people on shore discovered the boat in the Road, driving at the mercy of the wind and waves, they flocked to the coast, to give the unfortunate people what assistance they could, and by their activity most of them were saved. One lady and her maid-servant were among those that perished in the

the Road of Calais. It was reckoned, that above 2500 souls perished at this time, on the coast of Holland and east coast of England.

Same year, the *Unity*, Captain Neale, belonging to Sunderland, with troops from Slade to Gibraltar, sprung a leak in the Bay of Biscay, in company with several other vessels. The Captain took to his boat, with his mate and all the Officers of the troops, except the quarter-master; but they had hardly left the ship's side, when the boat overfet, and all of them perished. Six sailors, with the soldiers that were left on board the ship, though ignorant of navigation, ran her ashore on the Isle of Rhe, and were saved.

In March, there fell in Lorraine such a An. 1776 prodigious quantity of hail and rain, that 99 houses, composing the lower and principal street of the village of Tremont, was laid under water, and destroyed, with several of the inhabitants.

Same year, the *Castilla*, a Spanish man of war, of 60 guns, took fire off the mouth of the Tagus; when the flames reaching the powder-room, she blew up, and all on board perished.

Same year, in June, a mackerel-boat started a plank in her bottom; upon which the crew instantly cut away the masts, and had just made a kind of raft of them,

when the boat sunk. On this raft they remained nine hours, before they were observed by a ship, at three miles distance, who bore towards them and took them up.

An. 1777 In August, about nine o'clock at night, a vessel from Rochelle, with eight hands and two passengers on board, was blown towards the Breakers of Dieppe; the wind blew so hard, and the sea was so violently agitated, that a coasting pilot could not get out to bring her safe into port, though he attempted it four different times. Another pilot, named Bouffard, a man of courage and resolution, perceiving that the helms-man was steering a wrong course, which would expose the ship to almost inevitable destruction, endeavoured, by signals and a speaking trumpet, to set him right; but the darkness of the night, the whistling of the winds, and the roaring of the waves, prevented the Captain from either seeing or hearing. The vessel ran aground about 30 fathoms beyond the Breakers. Struck with the cries of the unfortunate crew who were just going to perish, Bouffard resolved to carry them assistance at the risk of his life. He was deaf to the remonstrances of his friends, and sent away his wife and children, who endeavoured to hinder him; tied a rope round his body, fastened the other end of it to the pier, and plunged
into

Brave and humane conduct of a pilot rewarded by the King of France.

into the sea, carrying another rope to the vessel. When he got near her, a wave drove him back, and left him on the shore. He was thus borne back about 20 times, after as many efforts to gain the ship. Still determined, though severely hurt, by being so often rolled violently upon the beach, he leapt again into the sea, and a wave carried him under the vessel. He was then thought lost; but he soon appeared again, holding in his arms a sailor who had been washed off deck, and whom he brought motionless and almost without life to land. After other efforts, he reached the ship again, and threw the rope he carried on the deck: such of the crew as had strength sufficient left, tied themselves to it, and were drawn safe ashore. Bouffard now thinking he had saved the whole crew, overcome with fatigue, and his body all over bruised, went with difficulty to the hut to which the preserved men had been carried, when, fainting, he fell down and swooned away. Some help was administered to him; he threw up salt water which he had swallowed, and was but recovering his spirits, when he was told, that groans were still heard from the ship. He instantly broke from the arms of the people that were assisting him, ran to the sea, plunged again into it, and was happy enough to save another man, one of

the passengers, who had lashed himself to a part of the ship, but had not strength enough to get off when the crew escaped by the means of the rope. Out of ten persons who had been on board, two only perished, whose bodies were found next morning; the other eight owed their lives to Bouffard. Every one was surprized, and struck with admiration, at the intrepidity and humanity of this man. Monsieur De Crosne, the Intendant of Roan, wrote an account of the affair to Monsieur Necker, Director-General of the Finances of France, who communicated the same to the King, and had his Majesty's directions to write to Bouffard as follows:

“ Brave Man,

“ It was only the day before yesterday that
 “ I received an account from the Inten-
 “ dant, of the courageous action you per-
 “ formed the 31st of August, and yester-
 “ day I laid it before his Majesty, who
 “ commanded me to express to you, the
 “ satisfaction which he felt at reading it;
 “ and to inform you, that your behaviour
 “ has appeared to him in so amiable a
 “ light, that he has ordered you a gratifi-
 “ cation of 1000 livres, and settled on you
 “ an annual pension of 300. I write in
 “ consequence of this order to the Inten-
 “ dant. Continue to give every succour
 “ in your power to those who may stand
 “ in

“ in need of it ; and offer up your prayers
 “ daily for your good King, who loves
 “ brave men, and feels himself happy at
 “ having an opportunity to reward them.

(Signed) “ N E C K E R,
 “ Direct. Gen. of the Finances.
 “ *Paris, Dec. 22, 1777.*”

Same year, in a violent squall of wind, at Montego Bay in Jamaica, a number of ships were driven on shore, and some of them beat to pieces. Fifteen people perished on board the Elizabeth, (three seamen and twelve passengers) viz. Montague James, jun. Esq; his Lady, and five children, Mrs. Silvia O'Brien, Mr. Charles Leigh, Mr. Waring, and two Negroe girls. On board the Jesse eight perished; among whom were one passenger and all the Officers. Of the crew of the Jenny, Kerr, six were drowned. The beach, from one end to the other, was an entire scene of wreckage.

Same year, in an engagement between the Yarmouth ship of war, Captain Vincent, and the American ship Randolph, of 36 guns and 305 men, the latter blew up, and all on board perished, excepting four men, whom, the fifth day after, Captain Vincent, while in chase of another ship, happened to meet with, on a piece of the wreck, and had nothing to subsist on for these five

A method of catching rain-water at sea.

days and five nights, but the rain water that fell on a piece of blanket, which they had luckily picked up, and out of which they sucked the rain water.

Same year, the *Esperantza*, a Spanish man of war, of 58 guns, was lost a little to the eastward of Gibraltar, and 40 of her people were drowned.

Same year, there was a great inundation in the city and neighbourhood of Peterburgh, by which many hundreds were drowned. This part of Russia is much subject to such inundations.

Same year, when the British Navy were forcing their way up the Delaware, the *Augusta* man of war, of guns, and *Merlin* sloop, were burnt; the second Lieutenant, Chaplain, Gunner, and a great number of the common men, perished.

An. 1778 The *Lyons*, a French man of war, from Martinico, was lost off the Harbour of Brest, and all the crew were drowned; together with three families, passengers from Martinico, with all their effects.

An. 1779 On the 30th of October, the sudden overflowing of the Iser occasioned the utmost consternation in the capital city of Munich, in Germany. At night the fœcin was rung, and the cries of the inhabitants were dreadful: in two hours different parts of the town were nine feet under water. Nothing was to be seen for twenty-four hours, but the

the ruins of houses, furniture, and the dead bodies of men and other animals, floating. On the 2d of November, the flood began to abate.

Same year, there was a great storm in England; upwards of 300 vessels and many seamen were lost.

Same year, off Berry-head, the Ruffel man of war ran on board the London East-Indiaman, which stove in her bow: in half an hour she sunk, and out of her crew, 160 men, only 50 were saved. It was a dismal scene to behold the men standing on the gunnel, as she went down. A man of war's boat, who at the risk of their lives had picked up ten or eleven of the London's crew, and were endeavouring to save more, got directly over the place where she sunk, and the suction drew the boat down, so that they all perished. More of the crew would have been saved, but that they worked too long at the pump, endeavouring to save the ship.

A few months thereafter, the same Ruffel man of war, in a gale of wind, ran down the Captain Drew, from London to Quebec, and all on board perished.

The Admiral Duff, a large ship of 32 An. 1780 guns, Captain Richard Stranger, from St. Kitt's and St. Eustatia for London, in an engagement with the American ship Protector, Captain John Foster Williams, took fire,

fire and blew up. The Americans hurried out their boats, and took up 55 ; among whom was the third mate, the only Officer saved. The ship then being too much crowded, became sickly, and many, especially of the wounded, died.

The same year, the Terrible privateer, of London, Captain Ayres, of 28 guns, foundered near Bermudas, and 183 men, including the Officers, besides a great many prisoners, perished.

Same year, in the hurricane in the West Indies, the Stirling Castle, of 64 guns, was totally lost on the coast of Hispaniola, and only about 50 of the crew saved ; and these were found many days after floating on part of the wreck. The fate of the Thunderer of 74 guns, Commodore Boyle Walsingham, was still more calamitous ; for she had foundered at sea, and no memorials or particulars of her catastrophe ever came to light. The Scarborough, of 20 guns, was lost, and every person perished. The Phoenix, of 44 guns, Sir Hyde Parker, was wrecked on the Island of Cuba ; but all her crew were saved, excepting 20 men, who were washed overboard, or fell into the sea with the main mast. The Barbadoes and Victor sloops of war, with the Cameleon, Scarborough, and La Blanche frigates, suffered likewise, with a partial or total loss of men and Officers. The Andromeda and
Laurel

Laurel, of 28 guns each, were both lost on the coast of Martinique. The Deal Castle, of 24 guns, suffered the same fate. Thirty-one of the crews of the Andromeda and Laurel were saved, to whom the French gave every relief; and the Marquis de Bouille sent them in a flag of truce, to Commodore Hotham, at St. Lucie, lamenting that they could save so few, and none of the Officers. The Beaver's prize of 18 guns, Captain Drummond, (much lamented) was wrecked on the back of the Island of St. Lucie, and all her Officers and crew, excepting 17, perished. The Amazon man of war had her carpenter and 20 men drowned on her decks, and washed over board; the vessel being on her beam ends for many hours. A French convoy, of about 60 sail and two frigates, having 2500 troops on board, were totally dispersed, and many of them lost. Many wrecks at sea were seen and met with. The Experiment French frigate, of 50 guns, was driven on shore at Guadaloupe. The Juno, another French frigate of 40 guns, was cast away at St. Vincent. A brig, with 160 men on board, troops and others, foundered there, and all perished. Two other frigates were thrown on the Saints, and perished. Many vessels were drove ashore at St. Christopher's; 11 were lost at Martinico; and 13, with their crews, at Guadaloupe: 19 sail of
loaded

loaded Dutch vessels were dashed to pieces on the Island of Grenada. The beautiful town of St. Pierre, built on the shore in Martinico, was said to have been entirely overwhelmed and washed away; also the town of Basseterre, on the shore of Guadeloupe. Many houses on the Bay of St. Eustatia were washed into the sea. The town at St. Vincent's was washed away. The sea broke in upon the town of Savanna la Mar, and on its retreat swept away every thing with it, not leaving a vestige of man, beast, or house, behind—not less than 300 people drowned. The sea flowed up half a mile beyond its usual bounds, to the height of 10 feet; and all this destruction happened at noon-day. At Barbadoes many were carried by the force of the wind into the sea; many more were carried along with the waves, which invaded the shore; and not a smaller number were destroyed by the torrents of fresh water, which poured from the clouds into the rivers and rivulets.

Same year, early in the action between Lord Rodney and Don Juan Langara, near the shoals of St. Lucar, the Spanish ship San Domingo, of 70 guns and 600 men, blew up, and all on board perished; and the English man of war with which she was engaged, narrowly escaped a similar fate. Another Spanish ship of the same force,

force, after being taken, run upon the breakers, and was totally lost.

The Culloden, a fine new ship of 74 An. 1781 guns, was totally lost in the Bay of Chesapeake.

Same year, four capital Spanish ships, besides others of different denominations, were totally lost in their way from the Havannah to Pensacola, and all on board perished. The loss of lives was reckoned considerably above 2000.

Same year, the Betsey and Valentine, from Wills to Schiedam, or Rotterdam, was lost on the Gunfleet Sand, or W. Rocks, near Harwich, and the Captain, Mate, and two hands, were drowned.

Same year, the Neptune transport, Capt. Brown, with troops, on her passage from the Downs to Portsmouth, was run down by the Sykes victualler, and upwards of twenty persons perished.

Same year, a large Prussian ship from Bourdeaux for Ostend, run on shore in Bigbury Bay; the Captain and three men drowned.

Same year, L'Immaculée Conception, from St. Andero to Cadiz, was lost on the coast of Ayamonte, and five or six of the crew drowned.

Same year, the Supply, Leptrot, from Liverpoole to London, was wrecked in Start Bay, and all on board perished.

Same

Same year, the London, Evans, from Liverpoole to London, was lost, and all on board perished.

Same year, the Zee, Fortune, prize to the Essex, was lost off Wexford, and all the crew perished.

Same year, a ship from Oporto bound for Dublin, was lost near Castlehaven, and every soul perished.

Same year, Capt. Jackson, of the Sampson transport, in coming from Cowes in an open boat, was drowned, with four of his people.

Same year, the Duchefs privateer, of London, was run foul of in the Downs, by the Houghton, Godshal, from Oporto to London, and foundered; part of the crew were saved.

Same year, a boat picking up the wreck of some vessels near Plymouth, overfet, and five men perished.

Same year, the Amsterdam, Dahlstrom, from Naples to London, was lost near Weymouth; the master, four of the crew, and a passenger, were drowned.

Same year, the Nimble cutter, with dispatches for Gibraltar, was wrecked near Mountsbay; twenty-eight men were drowned, and thirty, with the Captain, saved.

Same year, the Dart privateer, of Dartmouth, Capt. Burd, was lost at Madeira; the Captain drowned.

Same

Same year, the Nancy, Barron, from New York to Lisbon, foundered at sea ; the crew were taken up by the Fly, and brought to Portsmouth.

Same year, a sloop at anchor in the Road of Elfinore was lost by a severe gale, and all on board perished. She was supposed to be from some port in Jutland, and had passengers on board.

Same year, the Rose in June, Jones, from Falmouth to Swansea, run on a rock near the Land's End, and sunk ; all the crew, except one boy, perished.

Same year, the ship of war Molly, Captain Lang, caught fire off Point Linas, and blew up ; about 40 of her people were saved on the wreck.

Same year, the Earl of Cornwallis privateer, of 18 guns and 100 men, overfet at St. Kitt's, as they were cleaning her bottom, and a great number of her people were drowned.

Same year, the Pheasant cutter overfet, and all on board perished, excepting the pilot, the master, and two boys.

Same year, the Neptune schooner, of Glasgow, John Williamson, from Cork to London, falling in with the Cæsar privateer, of London, the Captain of the Neptune was ordered on board the privateer, with her papers ; in doing which the boat overfet, and Captain Williamson, with his ship's

ship's papers, and six of the Cæsar's men, were lost.

Same year, the St. Antonio, de Lisboa, Joze Francisco de Nascimento, from Oporto, was lost on the rocks at Scilly, and every person on board perished.

Same year, in an engagement between the Cameleon sloop and a Dutch privateer, the latter blew up, and all on board perished.

Same year, the St. Joaquim, E. Santa Anna, Oliveira, from Oporto to Hamburgh, was lost near the island Rollam, and only the Captain and two men saved out of seventeen.

Same year, the Elizabeth, Taylor, of Londonderry, for Dantzick, was lost, and all on board perished, except one lad.

Same year, the Josepha, Haine, from Petersburg for Cork, foundered in the North Sea, and all the crew perished, except the Captain and one man.

Same year, the Daniel, Collier, from Barbadoes to Newfoundland, was lost on the coast of Newfoundland, and 24 of the crew drowned.

Same year, the London, Matthews, from Liverpoole to London, was lost at the mouth of the River Bray, and the Captain and three men drowned.

Same year, the General Parker East-Indiaman was driven on shore on the coast of Holland, after losing all her anchors and
boats.

boats; fifteen of the crew perished, and sixty were saved by the Dutch, who humanely exerted themselves in their behalf.

The Swan sloop of war was lost off Waterford, and all the Officers and crew (125 men) were drowned: she had likewise some of Captain Macbride's new raised volunteers on board, all of whom perished. An. 1782

Same year, the French frigate La Senegal, prize to the sloop Zephyr, blew up at Spithead, and 22 of the Zephyr's Officers and seamen perished.

Same year, in the battle between Admiral Rodney and Count de Grasse, the Cæsar was burnt, and the Diadem sunk, both French ships of 74 guns.

Same year, the Ville de Paris, Admiral Count de Grasse's ship, and the Glorieux, another ship of the line, both taken by Admiral Rodney, foundered in their way to Britain, and all on board perished, excepting one James Wilson, a seaman, who was taken up on a piece of the wreck, by a Danish merchant ship.

Same year, two large ships (a Swede and a Dutch) were wrecked at Bigbury, and all the crew of one of them, excepting one man, were lost.

Same year, the Brutus, Wilcox, sailed from Gambia for London, in July, and has not since been heard of.

Same year, the *Ramilies*, of 74 guns, and several merchantmen, from Jamaica, foundered at sea : the men were taken out of the *Ramilies* ; but several of the merchant ships' crews were lost, happening to go down out of the reach of their companions. Follows an account of some of them. The *Withywood*, Evers; the *Dutton*, Payne; and the *Anne*, Leg; from Jamaica to London: the *Rodney*, Luscomb, to Bristol; and the *Sarah Golborn*, Orr, for Liverpoole; all foundered off the Banks of Newfoundland. The crew of the *Withywood* were taken up by the *Thetis*, of Bristol. Also foundered, the *Dumfries*, Currie, for London, and only one man saved. Also the *Mentor*, Whiteside, for Liverpoole, and the Captain, second Mate, and a boy, were all that were saved, out of thirty-four people—The Captain was seven hours in the water, and had nothing but a yard and a pole to keep his head above it; the other two had got hold of the boat's gunnel—In that situation they happened to be found, and taken up by the *Sarah*, of Lancaster. Of the *Minerva*, Captain Holmes, bound for Clyde, Mr. Scott, the second mate, (the only person on board who was saved) gave the following account :—On the 16th of September last (1782), lat. 41, long. 49, it began to blow hard, till the evening, when it blew a perfect storm; the *Minerva*

was

was then brought under a fore-sail and mizen-stay-sail, and continued under this sail till towards midnight; when the mizen-stay-sail split in two, and she proceeded under a fore-sail; the sea at that time making a fair passage over the ship. At one A. M. the wind checked about suddenly, and carried away the fore-sail. About a quarter of an hour afterwards, the ship lying very low, the quarter-boards went down with a crash, as if the ship was going afunder. In a short space after, the mizen-mast was cut away, to try if the ship could keep before the sea, which she did not, though the helm was kept hard up to the starboard. In five or six minutes after, Mr. Scott, who was then at the helm, was told the ship was going down, and that the pumps were quite choaked. Soon after, a sea broke on board the ship, and washed him from the helm; who, when in a hollow of the sea, observing a little of the ship's quarter, swam on board, and got hold of the tiller-rope. The deck being then full of water, he, with the assistance of the rope, got to the weather side of the ship, in the lee of the mizen chains, at which time he saw not a soul on board. In this situation the sea broke over him several times; he felt the ship going down, and was carried under water by the suction it occasioned. After losing the ship, he began

to swim, and in the action of swimming struck the cross jack-yard with one of his hands, and laid fast hold of it ; then looking round him, he saw nothing of the ship, but about a fathom of her starboard main yard-arm. He hung by the cross jack-yard about two hours, till day-light on the 17th, when finding the mizen-mast hanging by the yard, he lashed the yard to it, with the running rigging of the mizen-top-sail, and hung by it. In this dreadful situation he remained five hours longer ; when he was taken up by the *Betsey*, of Whitehaven, Captain Storey. Besides the master and crew, several gentlemen, who were passengers, were unfortunately lost.

Same year, the Spaniards and French made their grand attack on Gibraltar. The distress of the people on board the Spanish gun-boats, when set on fire, and the boats sent to their assistance were beat off, was beyond description. Captain Curtis saved 13 Officers and 344 men from the flames and the water, with great danger to himself and his people. Several launches were sunk ; on the wreck of one which flowed on shore, were saved 13, part of a crew of 80 men. A great many perished in the flames.

Same year, the *Providentia Divina*, Bonthram, from Marseilles to Ostend, was wrecked on the Island of Scilly ; two of
the

the men were lost; the rest saved, after swimming and being on the rocks twelve hours.

Same year, the corfair St. Juan Nepomuzeno, Captain Gallardo, from St. Andero for the Havannah, foundered in sight of the port, and the crew and passengers were all drowned.

Same year, four ships were lost in sight of the port of Ostend; three of them from Liverpoole; one foundered, and all on board perished.

Same year, the Endeavour, Macdonald, from St. Lucie, foundered off the Western Islands; the master and thirteen seamen were taken up by the Albion, bound to Glasgow.

Same year, the Frow Tibeta, Sanders, from Liverpoole to Ostend, was lost near Ostend, and the Captain and all the crew drowned.

Same year, the Jonge Maria, from Cadiz to Ostend, drove on shore about two miles to the eastward of Rotterdam. The Captain and one man drowned.

Same year, the Seven Sisters, an Imperial ship, from Hull to Ostend, was lost near Dunkirk, and only two people saved.

Same year, the Union, a new Dutch man of war of 68 guns, was sunk on the Dogger Bank, and all on board perished. Her commander, the Count de Welderen,

eldest son of the late Ambassador of that name at the Court of London, is much lamented.

Same year, the Christian Stadt, Kragh, from Copenhagen for Tranquebar, was lost in the Categut, and six persons drowned.

Same year, the Stephen, Trotter, from Archangel, on her passage through the White Sea, took up the crew of the Young Henrick, a Prussian galleot for Amsterdam, which was wrecked on the coast of Lapland.

Same year, the Hare, Grant, from Barbadoes to Newfoundland, foundered at sea.

Same year, the Maidstone privateer, of London, overfet at sea, and all the crew, excepting eight, perished.

Same year, the Christiana Frederica, Hesselburg, from Nantz for Christiana, was lost on the Goodwin Sands. The crew were saved by the Deal boats.

Same year, the Peace and Plenty, from Cork to the West Indies, overfet, and all the crew perished except one, who was taken up by a ship belonging to Glasgow.

Same year, the Phoenix lugger, Capt. Davey, in an engagement with the Fearnought cutter, Capt. Fall, received a shot between wind and water, which obliged her to sheer off; and before the Shaftesbury cutter, who was in company, could give her

her any assistance, she sunk, and fourteen of her crew were drowned.

Same year, the Will, Brocklebank, was lost in Carnaervon Bay, and the Captain, with five others, were drowned.

Same year, the Fly, a French privateer, was lost on the rocks near Boulogne. She had seven ransomers on board, all of whom, with forty-eight of the crew, perished: the Captain and five others only were saved.

Same year, the Splitwiskers, Ranton, from Plymouth to Ostend, was lost near Ostend; the Captain and four men drowned.

Same year, the Carolina, Paterfon, from Cork to Ostend, was lost at Bude; and all the crew were drowned excepting one man.

Same year, the Active, Izat, from London, meeting with the Burke, Venus, and Aurora, from Bristol, and mistaking each other for enemies, the Active, in firing her chasers, blew up; and of her crew, 50 men, only 18 were saved.

Same year, the Balfour, Journeaux, from St. Augustine to London, was lost upon the Island of Flora, and eight of the crew drowned.

Same year, a Portuguese ship was lost on the rocks near Falmouth; and the Captain and most of his people were drowned.

Same year, the Dartmouth East Indiaman was wrecked upon the coast of the Island

Car Nicabar, in the night, the ship breaking into two parts ; almost all who trusted to their swimming were lost, while those who remained on the wreck were saved. The horror of their situation was great. When morning broke up, they discovered rocks around them on every side, before them a savage Island, dead bodies scattered upon the beach, in great numbers, and goods of every kind lying as far as the eye could travel on the shore. It was near three in the afternoon ere all of the survivors were landed. They were taken off this island three days after, by the Chapman, Captain Walker.

Same year, the Grosvenor East-India ship, Captain Coxen, was lost on the coast of Africa, a great way N. E. of the Cape of Good Hope, supposed about South Lat. 28 deg. 30 min. The following account of this very melancholy affair, is taken from the examination (by the direction of the Chairman of the East-India Company) of four of the seamen lately arrived in England. The crew reckoned themselves far from land, when, about five o'clock in the morning of the 4th of August, the ship struck upon the rocks. She was soon full of water, and about noon broke in pieces. They hoisted out the yawl ; but it was stove immediately. They next made a raft ; but the seven-inch haw-

fer,

fer, by which it was fastened, broke, and the raft drove ashore with four men on it, only one of whom got there; the other three were drowned. Three Lascars swam ashore with a lead line, and made a hawser fast to a large rock, by which many of the seamen got ashore; though nine were drowned in the attempt, by the hawser's slackening. Another attempting to swim ashore, was drowned, and two more about the ship—making fifteen drowned in all. The number on board was said to have been 153. Almost 100 persons (among whom were some ladies, children, and women-servants) were upon the starboard side of the ship when she parted; that side then sunk into the sea, and floated, with all of them upon it, into shallow water: some others of the people, in like manner, floated ashore on the fore-part of the ship. Plenty of timber from the wreck, and the masts, booms, and sails, were cast ashore, sufficient to have built and fitted several vessels; nor were tools, as axes, &c. wanting. Plenty of beef and pork, one cask of flour, one cask of wine, some hogs, and other things, came ashore, where they found abundance of fresh water: yet they resolved to travel through the country to the Cape, which they judged about sixteen or seventeen days journey; and they could carry only eight or nine days provision with them. Plenty
of

of guns were thrown ashore, but no powder ; and they travelled without any arms, but five or six cutlasses. While they kept by the wreck, the natives offered them no violence ; but stole what they liked, and ran away : iron and other metals, especially copper, they chiefly valued ; but paid no regard to the bales which were thrown ashore, only flitting them with their lances, as they passed. As soon as the English marched (which was the fourth day after they got on shore) the natives threw stones and lances at them. The Captain, some time after, by force, took a lance from one of the natives, which occasioned a skirmish ; after which they never opposed the natives, but let them take what they pleased. The first river they met with, they waded through breast-high, the seamen supporting the ladies and carrying the children. About ten days after the ship was lost, the Captain, some of the Officers, passengers, and seamen, with the ladies and children, forty-seven in number, were left behind, and have never since been heard of. Difficult to find provisions, the others again divided into different parties ; many of them, exhausted with fatigue and hunger, were left, at different times, by the way, some alive and some dead. The natives appear to have been afraid and jealous of them ; and are said to be on bad terms with the Dutch.

Deep

Deep rivers interrupted much their journies, through which some swam; while others passed on floats, made of rotten wood and stumps of trees, which they tied with their handkerchiefs and roots that grew on the sand. When they found sand-creepers, a kind of cockle that hides under the sand, they reckoned they had plenty of victuals.

By the last accounts, of the 153 said to have been on board, only eight persons, besides some Lascars and black women-servants, arrived at the Cape: from whence the Dutch Governor sent a party of 100 men, with waggons, horses, and tents, in quest of such of the unhappy English, as might be still surviving; but without success. They were obliged to return, when they had got within five days journey of the wreck, their horses being tired, and the Mambookers refusing to let them through their country. They only met with several dead bodies, and, in a house of the natives, a great coat, supposed to have been the Captain's. Among the passengers were Colonel James and family, from Madras, Messrs. Taylor and Williams, from Bengal, a French Colonel and a Dutch Chief. The Governor of the Cape has sent again, in quest of such as might be still surviving.

On reading this lamentable account of the fate of the Grosvenor's people, the following reflections naturally occur,

cur. First, that if the new Preservative had been in use, it would have helped all of them ashore, and across the rivers. Secondly, it is said, they had plenty of provisions, and though they had seventeen days journey to make, yet took with them provisions only for nine days, being all that they could carry. It is also said, that they passed deep rivers, on rafts formed of rotten wood and stumps of trees, found upon the banks of the rivers, which they bound with their handkerchiefs, and roots dug out of the sand; and at the same time we are told, that the wreck afforded them abundance of timber, masts, booms, sails, ropes, and tools. Is it possible, that a Chief, two Colonels, two Captains, other Gentlemen, and the whole Officers and crew of an East-India ship, could have such abundance of materials and tools, and yet be so improvident, as set out upon such a journey, without making some kind of carriages for their provisions and other necessaries, and without taking with them also a sufficiency of rope for forming these very carriages into rafts, for helping them and their goods across the deep rivers? This question will, perhaps, be answered in the negative, when farther accounts arrive;

arrive; for, surely it may be hoped, that more of these unhappy sufferers will sooner or later find their way home. Thirdly, it is said, they had no arms, but five or six cutlasses, although plenty of guns came on shore, but no powder. Hence appears the propriety of taking cutlasses with them on such occasions, and also bags, water-proof, made of leather, or rather of the substance of China rubbers, filled with gun-powder; for, had these people been better armed, they might have commanded more respect from the natives, and had less difficulty in finding provisions. Fourthly, the account given seems to hint, they might have built one or more vessels, sufficient to carry them by sea to the Cape, or some other hospitable place. If they had done so, it would have been much preferable to the very dangerous journey they attempted by land; and then, all that got on shore might have been saved, as were the seventeen survivors of the crew of the Doddington, which was wrecked twenty-seven years ago upon the same coast, but some degrees nearer the Cape. These remains of the Doddington found the natives of this coast so inhospitable, that they preferred living seven months upon a small, barren,

Use of
bags, wa-
ter-proof,
filled with
gun-pow-
der.

barren, uninhabited rock, which afforded them nothing but some gan-nets and their eggs ; not even fresh water. See page 57.

Same year, the Centaur, Captain Inglefield, of 74 guns, foundered in the Western Ocean, lat. 48 deg. 33 min. and long. 43 deg. 20. about 250 or 260 leagues W. N. W. of Fayal, one of the Azores. The 16th and 17th of September, the ship suffered much in two severe gales of wind ; and from that time to the 24th, every effort was made to save the ship, but in vain : for the last four days no other sail was in sight. The crew, who, while there was any hope, laboured with the greatest resolution, determined to conquer every difficulty without a murmur ; when they found their endeavours of no avail (the water then almost filling the ship, and rising fast) and that their fate was inevitable, and just approaching, gave themselves up to despair ; some burst into tears, and wept like children ; some appeared in the agony of distress ; while others, seemingly resigned, went to their hammocks, and desired their mess-mates to lash them in, determined there quietly to meet their fate. Many put on their best and cleanest cloaths, agreeably to that natural desire which most persons have, in the view of shipwreck, to be found, whether dead or alive, in such order as to claim

claim the greatest respect ; and others were lashing themselves to gratings and small rafts. Preparations were made for making rafts to float the ship's company ; although it was evident, their booms could not support one half of them in fine weather. All their boats being staved but the pinnace, the Captain, with six other Officers and five seamen, betook themselves to it, and left the ship but a little time, when she foundered, and all the rest of the crew undoubtedly perished. Her complement was 600. The Captain and his eleven companions had got into the boat one bag of bread, a small ham, a single piece of pork, two quart bottles of water, a few bottles of French cordials, a blanket, which served them for a sail, and a sheet, which, when it rained, supplied them with some water: Catching rain-water at sea. they spread it out to the rain, and when thoroughly wet, wrung it into the kidd with which they bailed the boat. They had neither compass nor quadrant, nor great coat or cloak to cover them ; yet after passing sixteen days and nights in this open boat, they arrived at Fayal, all but one man, who died with hunger, thirst, and cold, the day before their arrival. When fresh water failed, all of them, except the Captain, drank salt water, and some their own urine, which threw them into agonies and a disorder in their throats.

If

Benefit of
wearing
wet
cloaths,
when
fresh wa-
ter fails.

If Captain Inglefield and the eleven persons with him, had dipped their cloaths in the sea, when fresh water failed them, as Captain Kennedy and his people did, (p. 73.) they would have suffered less by thirst; and if the whole crew had got the new Preservative upon them, it is *possible* some passing ship, or ships, might have saved a part, if not the whole of them.

Same year, the Royal George of 108 guns, while careening at Spithead, was suddenly overset by a gust of wind, and Admiral Kempenfelt (very much regretted) with about 400 of the crew, and as many more women and children, that happened to be then on board, perished. Numbers of boats hurried to the place, and saved about 300.

In December this year, a great inundation of the sea happened upon the island of Formosa, which destroyed several towns, and drowned great numbers of people; 60 Chinese ships of war, and 300 victuallers in particular, were destroyed.

An. 1783
January.

The Jonge Adolph, of Koningsberg, Captain Lamont, from London, got aground near Warberg, when the Captain was blown overboard and drowned.

Same month, the Cornwall, Stevens, from Hayle to Swansey, was lost near
Swan-

Swansey, and all the crew perished except one man.

The Leopald, Barjolle, from Morlaix February to Ostend, was lost on the back of the Isle of Wight; the Captain and four men drowned.

Same month, the George, Craw, from Jamaica to London, was lost near Boulogne; the Captain and all the crew, except a boy, were drowned.

Same month, the La Bourgogne, a French man of war of 74 guns, foundered near the Island of Curacoa, half a league from shore, from some damage she received in a gale of wind, on the coast of North America; 400 of the crew got on shore, most of them on rafts. Four days after, three vessels from Porto Cabello, took up other 300 of the crew from the wreck, so much exhausted with toil and hunger, that they were about to consign themselves to the waves.

Some dreadful earthquakes happened in the Two Sicillies. Upwards of 2000 people, who, with the Prince of Sicilly, were on the shore, having just escaped from their ruined houses, were swept off at once, and drowned, by the sudden rise of the sea. Many escaped the earthquake, by getting off to sea in boats and ships.

The Belgioioso Imperial East-India ship, March, outward-bound, from Liverpoole, foundered

dered in Dublin Bay, two leagues from the shore, and all on board perished.

Same month, the Endeavour, Captain Souler, from Ipswich to Southampton, struck on a rock near Ramsgate; the crew took to their boat, but it overfet, and they perished.

Same month, the William, Flanagan, from Bristol to Galloway, was lost near Galloway, and only two of the crew saved.

Same month, the Alcmena frigate brought into St. Lucie fourteen men, being all that she could save of the crew of the Holker American privateer, who she had chased so close, that she overfet, and 100 men were drowned.

April. The Loinge Onsket, Portion, from Rotterdam to Surinam, was lost on the coast of Spain, and the Captain and some of his crew were drowned.

May. The Carlisle, Carlisle, from Liverpoole to Carlisle, was lost on a bank near Whitehaven; the Captain and two men only saved.

July. Some of these months, the two following shipwrecks of foreign vessels have also been mentioned:

A French ship, Le St. Clermont, Capt. La Barrots, from Brest to Lisbon, was lost on the coast of Portugal, and most of the crew were drowned; the Captain and only four of his men got ashore.

A French

A French ship, called the Marquis D'Aumont, from Francois to Bourdeaux, was lost off Cape Finisterre, and all the crew, excepting one man, drowned.

Copy of a paragraph in the Public Ledger of 23d July, 1783.

“ As there is a list appeared in print of
 “ the several British ships of war that have
 “ been taken by the enemy, lost, or de-
 “ stroyed, during the late rupture, a cor-
 “ respondent ventures to think, that a list
 “ of the Commanders who have lost their
 “ lives, will not be unseasonably given.
 “ The loss of ships must certainly be felt
 “ with regret, but the loss of lives which
 “ reflect such honour on their country,
 “ must excite still stronger emotions of a
 “ generous commiseration.”

Commanders.	Ships.
1775,	
J. Rodney	Ferret
1776,	
T. Eastward	Pomona
J. Morris	Bristol
H. Davis	Repulse
1777,	
J. Shirley	Vestal
P. Carteret	Druid
H. Gore	Pegasus
1778,	
G. Burdon	Drake

J. Botham

J. Botham Dispatch

1779,

W. Griffith Conqueror

G. Farmer Quebec

M. . Everitt Ruby

C. Warre Swallow

G. Selby North

R. Lock Falcon

1780,

Hon. R. B. Walsing- Thunderer
ham

Hon. H. St. John Intrepid

J. Pownall Apollo

T. Watson Conqueror

R. Carket Stirling Castle

S. Uppleby Blanche

H. Brine Andromeda

T. Lloyd Laurel

R. B. Nicholas Thunderer

S. H. Walker Scarborough

J. A. Drummond Beaver's Prize

R. Milbank Barbadoes

J. Johnstone Cameleon

H. Lloyd Shark

J. Jones Penelope

1781,

J. N. P. Nott Centaur

J. Macartney Princess Amelia

H. F. Evans Charlestown

J. Smyth Trepassey

M. Davis Britannia

John Wallace Thunder Bomb

J. Atkinson

1782,	
J. Atkinson	Repulse Cutter
W. Bayne	Alfred
W. Blair	Anson
Lord R. Manners	Resolution
F. T. Drake	Delight Sloop
W. Stevens	Superb
H. Reynolds	Exeter
R. A. Kempenfelt	Royal George.

In making up the above collection for the years 1781 and 1782, from English publications, as mentioned before, no notice has been taken of ships lost, where the crews were saved; or where the account did not bear, whether the people were saved or not; nor of missing ships, of which no farther particular mention was made: and upon considering the list well, the number of lives lost in the years 1781 and 1782, has been reckoned upwards of 10,000, and in these years there happened no extraordinary inundations, nor hurricanes, and no battles, where numbers were drowned, except that between Lord Rodney and Count de Grasse, in the West Indies, and the attack upon Gibraltar. As other countries suffer proportionably, what vast numbers, upon the whole, must thus have perished; especially, when extraordinary hurricanes, inundations, and battles, also happen? In the next edition, perhaps, it may be proper to enrich this collection with

Great
amount
of the
number
of lives
lost by
water.

some

some cases remarkable or useful only, from the histories of other countries.

Loss of
lives by
bathing,
&c.

With respect to the usual loss of lives by bathing, in Summer, swimming and pleasuring on the water, it need only be remarked, that since the fair weather set in this Summer, scarce a week has passed, without accounts of boys and men lost in the Thames, and boats oversetting—140 lives have been reckoned thus lost in one Summer, in the river Thames only.

Conclu-
sion.

If, after reading this account of so many, and so great loss of lives, a very considerable part of whom, doubtless, might have been saved by the use of such a Preservative as is now recommended (and as said before, thousands more of such instances may easily be collected) people will neglect the security of themselves and their children, and others committed to their care; he submits it to the thinking part of mankind, whether it will not prove, how irrational and improvident the generality are—how apt they are to jog on, in whatever track they happen to be accustomed with, like a blind horse in a mill—and how averse they are to do any thing, even for the safety of their lives, that is not customary and become the fashion. Example more than precept always leads the vulgar.

ADDENDA.

A D D E N D A.

IN page 21 it is told, that different persons, with the Preservative upon them, suffered themselves to be carried with the stream (without any motion of their own) through the center arch of London Bridge, when the fall and agitation of the water there were at the greatest. It is proper to add, that during the whole passage, from a considerable way above the Bridge to a great way below it, they continued thus without any motion of their own; some in an upright posture, and others lying on their backs; but all of them with their heads above the water—the broken waves only dashing over their heads, as they do over boats. The first trial through the Bridge, was made swimming all the way, with the Preservative on.

Effect of
the Pre-
servative
in rough
water.

In page 43, Tin Cans to be affixed to the body, in cases of shipwreck at great distance from land, are recommended to be filled with some mixture that may serve both as meat and drink, and will not soon spoil. The Author wishes that Chymists and others, of a genius for this subject, would consider and help the world to the most proper mixture, or rather to a variety of

Vessels
for food.

of such mixtures, that where some kinds cannot be provided, others may be used. The Author has no skill of chymistry : the only mixture that occurs to him, is water and pounded biscuit, with perhaps a little spirits, and juice of lemon. And it has since occurred, that vessels properly formed for this purpose, of the substance that the Indian rubbers are composed of, will be more proper than cantins of any metal.

GENERAL DIRECTIONS *respecting the*
USE *of the* PRESERVATIVE.

I. EVERY person should learn to swim, both on his back and belly ; first, with the Preservative ; and next, without it.

II. A person that cannot swim, should never be in the way of danger by water, without a powerful Preservative by him.

III. In a narrow river, or near shore with the tide coming in, especially if a boat attends, a careful person that can swim both on his back and belly, may fear little without a Preservative ; but he will be safer, and swim easier and better with one.

IV. At a distance from shore, or even near the shore if the tide be going out, not even a good swimmer should venture into the water, without an attending boat and a powerful Preservative.

V. Where

V. Where there is occasion, and where you may conveniently, at once, put on a powerful Preservative, by all means do so; but where you chuse only to be upon your guard, in case of an accident, a light one, of small bulk, may be put on; which, it is presumed, may prove no hinderance to any motion or action whatever; and be little, if at all, perceptible under a loose kind of dress; and in that case, sufficient additional pieces may be kept in your pockets. If, in this condition, you should suddenly fall into the water, the light Preservative upon you will save you from drowning, while you can do any thing for yourself; and at your leisure, while in the water, you can easily put on the additional breast-piece: an additional piece on the back is not so essential; but may also be put on, as it keeps the person better in balance, in an upright posture.

VI. In case of a very sudden emergency, as of a boat oversetting, while you have the Preservative only by you in a handkerchief, (one of the worst cases that can be supposed, if you be in any considerable degree careful) it will be proper instantly to seize the bundled up Preservative, and holding it to your breast, plunge into the water; you will find yourself rise immediately, and be supported by the Preservative; which you can then deliberately take out of the
I
handker-

handkerchief, and holding the breast-piece to your breast with one hand, with the other throw the back-piece over your head; after which you will be able to place and fix all properly. A swimmer, even without previous trials, will find but little difficulty in this operation (especially in salt water); but a person who cannot swim, would need first to practice in the water, to acquire the necessary management and command of himself: even a swimmer would do well to exercise himself in this operation, and then all difficulty in it will vanish.

VII. Persons who may have occasion to prepare for the worst, should not want the Ankle Valves and Webbed Gloves; and they should exercise and accustom themselves to the use of them.

UPON a review of the misfortunes before narrated, the different circumstances in which lives happen to be lost, and the necessary directions thence arising, appear to be as follow:

BY LAND, VIZ.

Fording rivers.

Passing branches of the sea, which the ebb tide leaves dry.

In these cases, when danger may be foreseen, a Preservative should be used.

Bathing

Bathing and swimming.

See the Directions, p. 124.

Boats oversetting.

No person can be certain of safety in a boat, even in a river, they are so easily overset, unless he can swim, or has a Preservative with him.

See the Directions, p. 124.

Falling off ships' sides, in rivers or harbours.

If you cannot swim, a Preservative may prove useful.

In war.

See p. 32, 33, and 70.

Floods and inundations.

Where people are subject to these, they ought to have Preservatives by them.

A T S E A, viz.

Boats oversetting.

See boats above. Have a Preservative either on you or with you. See in particular p. 76, last par. 81 two last par. 99 last par.

When there is danger of being tumbled or washed over-board ;

Or of falling off the ship's sides,

Or from the yard-arms,

Or from aloft,

And at boarding.

The Preservative should be put on.

See p. 27, 28, 29 ; and Direction V. p. 125.

When

When a ship at anchor is laid on her side to careen.

When she is run foul of by another ship.

When she is subject to be laid on her beam ends, or overfet, by carrying much sail, or sudden squalls of wind.

See in particular 118 Alcmena.

When a storm arises, which may prove dangerous.

When her leaks cannot be stopt, and prove too much for the pumps.

When she takes fire, which cannot be overcome.

See p. 58 Prince George, and 67 Lord Clive.

When she strikes or runs aground.
In battle.

In all these cases a man ought to foresee his danger, and timeously put on the Preservative. See Direction V. p. 125.

The ship's powder suddenly, and without warning, blowing up.

Against this danger, all that can be said is, that it will be lucky for you, if you have a Preservative on at the time, and happen to be blown, unhurt, or but a little hurt, into the water—a circumstance which frequently happens to some of the crew on these occasions. See p. 55 penult. par. and 107 active.

Never

Never in too great haste leave the ship or wreck. See p. 36, 87 *Unity*, and 107 *Dartmouth*.

Never suffer too many to crowd into a boat. See p. 52 *An.* 1682, p. 59, 82 *second par.* and 83 *penult. par.*

Against shipwreck. Consider well p. 43, 57 *Doddington*, 60 *Litchfield*, 73 *Kennedy*, 80 *Verelst*, 87 *last par.* 88 *An.* 1777, 91 *last par.* 93 *Russel*, 107 *Dartmouth*, 108 *Grosvenor*, 114 *Centaur*, and the *Directions* 124.

Lastly, one useful advice has hitherto escaped notice, viz. against shipwreck, or being thrown into the water, in cold weather, provide warm cloathing from head to foot.

P. 64 *penult. par.* it is said, the *Ramilies* was lost in *Quiberon Bay*; but that is a mistake—she was lost on the rocks near the *Bolt-head*, not a great way from *Plymouth*.

There is a great deal of
of water in the
the water.

There is a great deal of
of water in the
the water.

There is a great deal of
of water in the
the water.

There is a great deal of
of water in the
the water.

Since the printing of these sheets, it has occurred, that on many occasions a light *Oil Cloth Bag* may prove singularly useful, ^{Oil cloth bag.} in enabling us to carry dry, through the water, some necessaries along with us ; in particular in war, and even in private life, it will sometimes be found proper to swim across rivers, or other pieces of water ; and then our cloaths may be neatly folded up, and put into the bag, and perhaps some other necessaries also : the mouth of the bag can be covered, and tied so tight as to prevent the admission of water—some air may also be confined in the bag, to render it more buoyant—and, fixed to the back-piece of the Preservative, it will easily be drawn along with us through the water ; which having passed, we by this means have comfortable cloathing to put on ; whereas, without such a bag, we should be obliged to continue, and perhaps to travel in wet cloaths, a circumstance which might prove too severe a trial to most constitutions.—See pages 32 and 33 ; also the case of the Shipwrecked Grosvenor's people, p. 108.

Since the passage of that bill it has
been assumed that no more of these
X's will be made. But now we find
a number of them in circulation, and
want some excellent means of
destruction in war, and even in peace.
It will sometimes be found better to
destroy them, or at least to prevent
them from doing any harm, than to
put them into the hands of the
enemy. For necessity is the mother of
invention, and it is right as to
prevent the admission of water—some
may also be confined in the bag, to render
more pleasant—and, fixed to the back-
piece of the protective, it will easily be
drawn along with us, though the water
which having passed we have no means of
removing it, and so; whereas
without such a bag, we should be obliged
to continue, and perhaps to travel in wet
clothes, a circumstance which might prove
to prove a trial to most constitutions.—
to pages 32 and 33; also the case of the
diseased Grover's people, p. 108.